

OVERHEAD DOOR INJURIES

Commercial, Industrial, Residential

By Michael Panish

Door & Door Hardware Expert Witness
Automatic Door Expert Witness

As the retained expert witness on many overhead door injury and wrongful death cases, some of the injuries I have seen include injured or severed fingers and limbs, bodily trauma, and death. Disabling injuries often lead to involved lawsuits due to the combination of jobsite and employer, landlord and tenant contractual agreements, and property owner liability insurance coverage. Knowing who is responsible for maintenance and inspections of these doorways is essential.

In many jobsite related injury cases, the worker that is injured on the job is often covered by workmen's compensation insurance. In some cases there is no workmen's compensation coverage as the injury occurs to a self-insured person or a family member. In the more complex and often convoluted cases, indemnification clauses from lease obligations moves the liability of the injury ultimately upon the tenant in possession of the accident site, or the employer rather than the property owner.

In most of the cases where I have been the retained expert, the failure of the overhead door system mechanism is in some way related to the lack of professional maintenance and routine periodic inspections. In various cases, there are typically arguments as to which involved party had the duty to inspect the door systems. Ultimately, the deferred door conditions led to the injury.

There are a variety of overhead doors that are commonly installed throughout the country. Overhead doors can be broken down into several categories.



RESIDENTIAL overhead doorways are commonly used in settings such as single family homes, condominiums, and apartment buildings. The design of these doors is generally one of two styles. In older residential structures there are still many single panel overhead pivoting garage doors. In newer residential construction, it is more typical to encounter a sectional or multi-panel door system.

In **COMMERCIAL** buildings the overhead door systems can be composed of a wide variety of components and materials. Commercial overhead door systems vary tremendously in weight and size and are typically built more robustly than most residential overhead doorways. They are often remotely controlled by sophisticated motorized operators.





Another frequent source of injuries comes from overhead sectional doors that are installed into **COMMERCIAL TRUCK** bodies.

I have been the door expert on injury claims created from many types of overhead residential, commercial/industrial, and automotive doorways. In recent months, I have been retained to evaluate numerous injury claims attributed to commercial overhead doors. In several cases, they have fallen apart and had the components rain down on a person. Other overhead doors have dropped in “free fall”, and crushed or severed various body parts. I have seen real time surveillance videos where cars have driven into security gates which resulted in the doors disengaging from their track system and collapse onto innocent bystanders. In some cases, I have been told of multiple doors falling unexpectedly from overhead perches. People have been seriously injured and even died as a result of overhead door malfunctions. It is common to see amputation injuries derived from overhead doors.

LANDLORDS & DEFERRED DOOR MAINTENANCE

When an absentee landlord is responsible for the ongoing maintenance of a rental property, tenants are sometimes exposed to long term deferred door systems. In a few recent cases tenants have suffered head and neck trauma after being struck with a malfunctioning door system. In other cases body parts have been severed and amputated when door safety devices were improperly positioned, not functioning correctly, or simply removed after the original installation. Small children have been maimed from falling door and spring components and cars parked inside garages have been damaged when old style door springs have flown from their hinge points.

While commercial and residential overhead door systems can be quite different, there are often certain similarities in their construction that calls for regular and periodic maintenance inspections. In the case of any door system that has a motorized opener, that system should be inspected at least once a month. It is important to routinely verify that the door system is properly functioning as intended by the manufacturer. If safety sensors or pressure activated switches are installed they must also be inspected for function. Not all door systems require or have safety sensor beams or impact switches. In many warehouse or commercial installations an automatic instant reverse mechanism is the safety device. This type of door controller relies upon resistance input to stop and reverse the door operation. It is important to assure that the speed of travel of that type of door system is per manufacturer’s specifications.

CHECK THE DOORS

In residential and commercial applications, when electric eye beams are employed, they need to be frequently checked for proper alignment, focus, and cleanliness. Auto reverse functions, when present, need to be evaluated to prevent potential damage or injury due to crushing forces. If a rolling track system is part of the overhead doorway all rollers, guides, and tracks

need to be clean, lubricated and free of debris that would hinder door performance which could lead to catastrophic binding. In a commercial door system, it is important to make sure that all guides, safety systems, and motor clutches operate correctly. In commercial systems where flashing lights or audible alarms are in place, they need to be checked for proper function. Any obstructions that may be adjacent to the doorway must be removed to assure proper and safe usage of the overhead door system. The more complex a door system, the more frequently the system should be evaluated. In some commercial installations, a daily inspection should be made, while in single occupancy homes, once a month inspections are usually sufficient. In every door installation, it is essential that the entity in control of the doorway be aware of the condition of that doorway. If a change is noticed in the daily operation of the doorway, professional and competent service providers should be contacted immediately. The doorway should be thought of as unsafe to use until services are provided by a competent professional notifying you that the door is safe.

Overhead door systems that use springs to control the door must be adjusted to maintain a slightly buoyant condition. Generally, a sectional door should be able to stay unsupported approximately midway in its path of travel. Very little force should be needed to lift the door from that position, and the door should not drop suddenly if maintained in a properly balanced condition. Torsion or tension springs need to be rated for the specific size and weight of the doorway. When an automatic door operator is connected to the doorway, it is essential to verify the balance point between the door and spring adjustment or the automatic operator may not function properly. In large commercial installations, site specific conditions may dictate special requirements for appropriate lifting powers needed.

One of the most common reasons that many overhead doors systems malfunction is related to the control cable used to lift and regulate the balance of an overhead door. In many injury cases, the cable has become disconnected from or has been unable to recoil on the spool that allows and controls the stored spring tension energy used to maintain balance of the door panels. In some cases, the cable has broken from neglect and fails with catastrophic results. In other cases, deferred maintenance has created rusted and frozen components that are attached to those coiled spools, stopping them from working as designed. Depending upon the amount of usage (the cycles that the door undergoes in the course of an hour, day, week, month, or year) preventative maintenance often calls for proactive replacement of key components of overhead door systems. i.e. bearings, cables, and roller guides are frequently replaced prior to failing. Torsion springs are often only replaced when they have failed. But, a good service provider will suggest routine maintenance parts replacement to keep unexpected "down time" to a minimum.

It is good business practice on the part of the building owner to know the condition of the property that is leased to a tenant. When regular inspections are made by a landlord, it informs both the property owner and the tenant what repairs are needed and generally improves the safety of any person entering the premises. Frequent observations of all overhead doors can improve safety.

| All doors on every property, whether manually operated or automatic, should be inspected on a regular basis. When dealing with door systems used by the public, they should be inspected on a daily basis. Overhead garage doors should be routinely checked. Owner's manuals provided by manufacturers generally suggest that an electric garage operator and door system be inspected monthly. As previously stated, the more complex a door system is, the more frequently it should be observed for proper operation.

While there are similarities in most overhead door systems, many installations include unique and challenging conditions that add to the complexity of the doorways. It is important to make certain that every door is maintained in a safe and consistent manner. It is essential to know the condition of the property that is owned by a landlord, and leased by any tenant. If all of the parties involved in an occupancy situation fully understand who is responsible for maintenance and regular routine inspections, and appropriate repairs are made, then injuries may be kept to a minimum. Proactive actions will help avoid unwanted injuries.

| Michael Panish is the most frequently retained expert witness in the country for both plaintiff and defense cases involving overhead doors, automatic doors, and manual door systems. He has a thorough understanding of these door systems and a hands-on background that provides a basis for his expert opinions and working expertise. Mr. Panish has been retained on numerous cases that have quickly resolved after his involvement. He has been brought into many cases to replace previous experts that were unable to explain or identify the issues of causation. He has personally serviced, installed, and maintained major brand door products for many years. He is the author of many articles that cover most aspects of door components, door hardware, and door injury claims. Visit his website at www.constructionwitness.com for a list of relevant articles and to view all of his expert and consulting services.