



Motorcycle helmets 101

UNDERSTANDING THE CRITICAL ROLE OF HELMETS IN MOTORCYCLE ACCIDENT CASES

"Everything looks better from inside a motorcycle helmet." – Anonymous

This quote is a reminder that the best views and experiences while riding a motorcycle come from a perspective protected by a helmet. There is no question – helmets save lives and prevent catastrophic injuries. Understanding the critical role that helmets play in motorcycle cases can guide you in deciding whether to take on the next motorcycle personal-injury case that comes your way.

Motorcycle accidents pose a serious public-safety concern across the United States, and California is no exception. Its ideal weather, scenic roads, and congested highways have made motorcycling a popular mode of transportation in the state. However, this appeal comes at a cost: Motorcyclists and their passengers are at a significantly higher risk of severe injury or death compared to occupants of automobiles due to the lack of protective vehicle structure a motorcycle offers.

One of the most effective ways to reduce the severity of injuries and prevent fatalities in motorcycle collisions is by using helmets. This article explores the importance of helmets in motorcycle personal-injury cases, covering the history of motorcycle-helmet laws, California helmet requirements, modern motorcycle-helmet design and technology, and the physical and legal consequences of not wearing, or improperly wearing, a motorcycle helmet.

This history of motorcycle helmets

Early years of helmets

Motorcycle helmets have evolved significantly since the inception of the motorcycle itself. In the early years of motorcycling, riders were not required to wear helmets and, in many cases, did not do so voluntarily. The need for head protection was not widely recognized, and motorcycling was often seen as a daring activity for thrill-seekers.

The development of motorcycle helmets took a major step forward in the 1950s when American motorcyclists acknowledged the importance of better head protection and began advocating for effective head gear. After several high-profile crashes, including fatalities involving prominent figures in the motorcycle community, there was a growing consensus that helmets could help save lives. This led to the introduction of the first helmet standards in the United States, by organizations such as the American National Standards Institute (ANSI), in 1953. These standards were created to ensure helmets provided basic protection, particularly for head and skull injuries. Yet, the helmets of this era were mostly made from fiberglass and leather, with no regard for impact absorption and safety, like today's helmets. They were often seen more as a fashion accessory than a true safety device.

The adoption of helmet laws

As the number of motorcycle-related injuries and fatalities rose, in the 1960s, public safety groups and insurance companies



started to push for legislation requiring the use of helmets. The history of motorcycle helmets in the United States saw a significant shift when the first federal law mandating universal helmet use was enacted in 1966, requiring both motorcycle operators and passengers to wear helmets.

California, one of the first states to recognize the importance of helmets, passed its original motorcycle-helmet law in 1967, mandating that all motorcycle riders wear helmets, with strict penalties for noncompliance. This move was largely driven by concerns over the increasing number of fatalities in motorcycle collisions, many of which involved severe head injuries that could have been prevented by a helmet. The state's helmet law was met with resistance from many motorcyclists, some of whom saw it as an infringement on their personal freedom, since they felt that wearing a helmet was a personal choice that should not be mandated by law. Despite the controversy, evidence increasingly showed that helmets significantly reduced the risk of fatalities and serious injuries in motorcycle crashes.

By 1975, universal helmet laws were in effect in 47 states and the District of Columbia. However, after federal penalties for states failing to have a universal law were eliminated, in 1976, about half the states repealed their laws. Today, California and 18 other states, along with the District of Columbia, have universal helmet laws. Illinois, Iowa, and New Hampshire are the only states with no mandatory motorcycle helmet use laws. The remaining states have helmet laws that vary by age and/or experience, with some requiring helmets for riders under a

certain age or those with less experience. (For example, in Indiana, only persons under the age of 18 and those operating a motorcycle with a motorcycle learners permit, must wear a helmet.)

Helmet requirements and why they exist

California's strict helmet laws

California has some of the strictest helmet laws in the country. Under California Vehicle Code section 27803, it is unlawful to operate a motorcycle or ride as a passenger without wearing a safety helmet that meets the requirements imposed by Federal Motor Vehicle Safety Standard No. 218 (FMVSS 218). Vehicle Code section 27803 defines "wearing a safety helmet" as "having a safety helmet on the person's head that is fastened with the helmet straps and that is of a size that fits the wearing person's head securely without excessive lateral or vertical movement." The law does not provide exceptions for age, experience, or the type of motorcycle being ridden, and it applies to all riders, whether they are driving on highways or on local roads.

The state's rationale for mandatory motorcycle-helmet laws lies in the simple fact that motorcycle riders are at a great risk of death and sustaining severe head injuries in the event of a collision. Unlike automobile occupants, motorcycle riders are not enclosed in a protective shell, and thus, have little protection, making their heads more vulnerable to impacts with the road, other vehicles, or objects on the side of the road. Without the safety of a helmet, a motorcycle rider is far more likely to suffer a fatal or debilitating injury in a crash. California's helmet law aims to protect riders from such devastating outcomes and reduce the burden on the healthcare system.

The effectiveness of helmets

According to the National Highway Traffic Safety Administration (NHTSA), helmets are highly effective in protecting the heads of both motorcycle operators and passengers during crashes. Research indicates that helmets reduce motorcycle

rider fatalities by 22 to 42% and brain injuries by 41 to 69%. This protection is attributed to the helmet's hard outer shell, which helps distribute the force of an impact, while the inner foam padding aids to absorb some of the shock, ultimately reducing the amount of energy that reaches the skull and brain. These features are particularly important in motorcycle accidents, where the rider is at high risk of striking the ground, other vehicles, or roadside obstacles. Consequently, wearing a motorcycle helmet is one of the most effective ways to reduce the number of motorcycle-related fatalities and the severity of injuries in the event of a collision, increasing the chances of survival and reducing the long-term consequences for injured riders.

Modern motorcycle helmets

Advances in helmet design and technology

Over the years, motorcycle helmets have undergone substantial improvements in terms of materials, comfort, performance, and protection. Modern helmets are made with advanced materials that are lighter and stronger than earlier models, while offering superior protection against impact forces. These helmets are designed to protect motorcyclists from the most common types of head injuries sustained in crashes without sacrificing comfort.

Today's helmets have an outer shell which is typically made from materials such as fiberglass, carbon fiber, or polycarbonate that provide durability and impact resistance tough enough to prevent sharp objects from penetrating the helmet. Inside, helmets feature padding made from multi-density foam, which is designed to absorb impacts of varying severity – the outer layer absorbs high-energy impacts, and the inner layers protects against lower-energy impacts – and to cushion the motorcycle rider's head. The padding is engineered to provide maximum protection in the event of a high-speed crash, while also ensuring comfort. Multi-density foam is considered one of the key innovations in modern

helmet technology because it improves the overall safety of the helmet and increases the rider's chances of surviving a crash.

Importance of helmet straps and proper helmet fitting

While wearing a helmet is essential for safety, how a helmet fits and is worn is just as important. Helmet straps, typically made from nylon or other durable materials, are designed to keep the helmet in place during a crash. Helmets that are not securely strapped can fail to provide the level of protection needed in a crash, since a helmet that is loosely fastened may shift or come off during a collision, leaving the rider unprotected. The strap should be tight enough to keep the helmet in place, but not so tight that it causes discomfort.

In addition to ensuring that a helmet is securely fastened, it is also imperative for the helmet to fit properly. A helmet that is too tight can cause discomfort and may compromise its protective capabilities, while a helmet that is too loose may shift or move during a crash, rendering it ineffective in preventing injuries. The helmet should sit level on the head. Additionally, it should fit snugly around the head without causing pressure points or discomfort and should not move excessively when the rider shakes their head. It is also important to check for any gaps between the helmet and the rider's head, as these gaps could reduce the helmet's effectiveness in a crash. To guarantee a proper fit, motorcycle riders should follow the sizing guidelines provided by the helmet manufacturer.

DOT-certified helmet

To help protect the lives of motorcycle riders, the U.S. Department of Transportation (DOT) requires that all motorcycle helmets sold in the United States meet FMVSS No. 218 requirements. This standard defines minimum levels of performance that helmets must meet to protect the head and brain in a crash. Helmets that meet FMVSS No. 218 standards have certification labels on the back of the helmet. DOT-compliant helmets

manufactured on or after May 13, 2013, must have a label on the back that contains the following information and wording:

- Manufacturer and/or brand
- Model designation
- “DOT”
- “FMVSS No. 218”
- “CERTIFIED”

Labels on certified helmets made before May 13, 2013, simply read “DOT.”

Injuries from not wearing a motorcycle helmet or from wearing a helmet improperly

Motorcyclists who improperly wear helmets, or fail to wear helmets altogether, are at a much higher risk of sustaining severe injuries in the event of a collision. In the absence of a helmet, or without the protection of a properly worn helmet, the motorcycle rider is vulnerable to a range of injuries, the most common of which are:

1. **Traumatic brain injuries** – Traumatic brain injury (TBI) is one of the most common and serious injuries sustained in motorcycle crashes. Without a helmet, or a properly strapped and fitted helmet, the head is exposed to impact forces, increasing the likelihood of TBI. TBIs can vary in severity from a minor concussion to a life-altering injury or even death.
2. **Skull fractures** – The skull is at risk of fractures in motorcycle crashes, particularly when the rider is thrown from the motorcycle or strikes the ground with significant force. Skull fractures can result in life-threatening injuries and require extensive medical treatment.
3. **Neck and spine injuries** – In addition to head injuries, motorcyclists who do not wear helmets, or do so but incorrectly, are at a higher risk of suffering neck and spine injuries. These injuries can cause permanent paralysis or other long-term disabilities.
4. **Facial injuries** – Motorcycle riders without helmets, or those who improperly wear helmets, are also at greater risk of facial injuries, including broken bones, dental fractures, and disfigurement. Such

injuries can produce great physical pain, as well as have long-term effects on a rider’s appearance and quality of life.

Motorcycle helmet use and its impact on personal-injury cases

In personal-injury claims, whether or not a motorcycle operator or passenger was wearing a helmet, or was wearing it properly, can significantly affect the outcome of the case. In California, the comparative-fault rule plays a key role in determining the amount of compensation a motorcycle rider may receive after a crash.

Under California’s comparative-fault system, if a motorcyclist who was injured in a collision was not wearing a DOT-certified helmet, or was wearing an unstrapped or improperly fitted helmet, the defense may argue that the rider’s failure to comply with state helmet laws contributed to the severity of their injuries. While this argument may not absolve the defendant of their liability entirely, if successful, the plaintiff’s compensation can be reduced by their portion of fault.

For example, if a motorcyclist suffers a traumatic brain injury and was not wearing a helmet at the time of the crash, a jury may decide that the motorcycle rider’s failure to wear a helmet contributed to the severity of the injury. If the plaintiff is found to be partially at fault, their damages award could be reduced accordingly based on their failure to comply with helmet laws. Nevertheless, the reduction would depend on the specific circumstances of the case, and the injured rider may still be entitled to compensation, especially for other injuries caused by the collision.

As plaintiffs’ attorneys, there are a few imperative questions that you need to get answers to before taking on a motorcycle case where the potential client has suffered, or appears to have suffered, a head or brain injury. The first question you want to ask them is whether they were wearing a helmet at the time of the crash. If the answer is no, then you should

carefully consider whether to accept the case, especially if they are only claiming a brain or head injury and no other physical injuries (such as an amputated limb).

If the answer is yes, then the second thing you want to verify is whether the helmet they were wearing complied with FMVSS 218 requirements. The best way to do this is to make sure that the potential client has the helmet in their possession at your initial consultation, so that you can inspect and look for the DOT certification label yourself. If the answer is yes again, then you want to determine if they were properly wearing the helmet – that is, whether they had the helmet straps fastened *and* whether the helmet securely fit their head.

Conclusion

Helmets are not only life-saving devices that reduce the severity of injuries sustained in motorcycle crashes, but they also play a critical role in personal injury claims following the collisions. California’s stringent helmet laws underscore the importance of wearing a motorcycle helmet to protect riders from fatalities or life-altering injuries. Motorcycle riders must not only ensure that they are wearing a helmet, but also that the helmet is DOT-complaint, properly fitted, and securely fastened for maximum protection. Failing to do so can have severe consequences, both in terms of physical injury and legal ramifications in a personal injury case. As plaintiffs’ attorneys, understanding the pivotal role of helmets in personal injury cases can help you select the right cases and ensure that your clients receive the best compensation.

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