



Preventing MVIs through collision inv

Motor vehicle incidents, or MVIs, are the leading cause of occupational injury and death in the sectors IHSA serves. In 2013, 18 workers from IHSA member firms were killed in MVIs. A collision is considered an MVI if it occurs on a public road or highway but not on private property. They aren't just a workplace safety issue—MVIs can affect everyone on the road.

The primary reason for investigating the causes of a collision is to help prevent similar collisions in the future. Collisions rarely have a single cause. Work environment, job constraints, and the driver's skill and experience can all play a part. Each of these factors must be examined to determine what role they played in causing the MVI.

Once the causes have been established, precautions can be taken to prevent a recurrence. Investigators must always keep in mind that effective collision investigation means fact finding, not fault finding.

Reconstruct the scene

When it comes to investigation, a key component is to reconstruct the scene of the collision. At the 2014 Fleet Safety Council Educational Conference, retired IHSA trainer Carmine Benedetti led a workshop on collision investigation. He described some of the critical

components of evidence gathering, including the use of a crash-investigation instrument developed by Northwestern University.

NU's Metric Traffic Template is a see-through plastic instrument used by crash investigators, claims adjusters, and other professionals to:

- create scale maps of traffic collisions
- calculate speeds from skidding distances
- estimate stopping and acceleration distances
- change kilometres-per-hour to metres-per-second (metric model)
- measure angles and grades
- illustrate the arrangement of parked vehicles.

Inspect the site

A collision investigation can consist of many elements, but it usually starts with an inspection of the collision site. Measurements are taken of evidence left by the vehicles, such as point of impact, final resting position, skid marks, scrub marks, and gouge marks.

A field sketch is a free-hand map of the scene or site of the collision. It provides a bird's-eye view of the collision scene. These sketches also include measurements taken at the scene. This sketch can be created with the Traffic Template but should also include the following critical information:



Investigation

- Date, time, and location
- Weather and road information
- Vehicle licence information (including licence endorsements or restrictions)
- Name of investigator who drew the sketch
- Information on the vehicles involved (colour, make, model, etc.)
- Identity of driver(s) and owner(s), including name, age, addresses (home and work), and telephone numbers
- Insurance information (name, address, policy number, etc.)
- Names and contact information of all passengers involved
- Any knowledge that a passenger had of the driver being impaired before entering the vehicle (this includes not only intoxication but also fatigue, exhaustion, or any other physical condition that may have led to the collision)
- A list of safety devices installed and used
- Description of the road and road conditions
- Description of traffic conditions
- Mechanical description of the vehicles involved.

Photographs are also useful for recording the collision scene. They can become part of a more accurate record of the incident scene.

Inspect the vehicle

Vehicle inspections are another typical part of a collision investigation. This would usually include measuring the amount of damage to the vehicles. This information will be useful if a collision reconstruction is performed. The mechanical components of the vehicles, such as brakes, steering, tires, suspension, lights, etc. may be inspected and tested to determine if their condition of was a factor in the collision. The investigation might also include looking at drivers' qualifications, auditing logbooks, or reviewing other materials related to motor carrier compliance.

These facts and information can be vital pieces of a collision investigation that can help you analyze the causes of a collision and reduce the number of MVIs your company has in the future.

Tips for avoiding a collision

- Be extra careful at intersections—most urban motor vehicle collisions happen there.
- Avoid making unsafe lane changes.
- Slow down. Excessive speed is a major cause of MVIs.
- Don't follow the vehicle in front of you too closely.
- Adjust your driving for poor weather and road conditions.
- Check your vehicle for any equipment malfunctions before you drive it.