



LATEST RESEARCH ON CONDUCTING FIREFIGHTER/EMT INJURY INVESTIGATIONS

< The science of investigating and analyzing occupational injuries is evolving. This Bulletin will provide leaders of fire and emergency medical services insights into the latest findings by researchers such as Sydney Dekker, E. Scott Geller Ph.D., and Timothy D. Ludwig Ph.D. This discussion applies equally to injuries at an emergency scene and in and around the station.

An overriding principle is that a firefighter or EMT made a decision or acted in a way they thought would complete a task as their organization would have wanted. In other words, they behaved in the manner that the organization created. The organization established a hiring process, selected an individual from that pool, trained and retrained them, expressly or tacitly rewarded or punished them and their coworkers for past actions, provided them with tools and written and unwritten policies, and so forth. As a result of all that (not despite that), the firefighter or EMT behaved in a manner that injured themselves or another person.

The first hurdle the organization must overcome when investigating an injury to a firefighter or EMT is that the organization is essentially investigating itself. They need to stop blaming or labeling the injured person. Deeming the injury as preventable is blaming someone for what they did or did not do. Telling the injured person to "be more careful," "watch where you are going," or "be more aware" labels them as not a careful person or as a person who cannot be trusted to do a task safely. The better alternative is to consider the contributions of each party that resulted in the injury. The organization, its systems, its supervisors, and the individual all contributed to the injury.

An injury investigation starts with someone having to collect information about the circumstances of the injury. That person may be inexperienced in injury investigation. This presents the second hurdle in an honest investigation. The MSI can help with the lack of experience in collecting all the relevant information that may be needed during the analysis phase. There are three Firefighter/EMT Injury Investigation forms on the [MSI Fire & EMS Injury Investigation](#) webpage that will assist any investigator in asking more comprehensive questions and collecting better information.

The next hurdle is the person collecting the information may have natural human biases and assumptions. They must consciously put them aside and ask questions without any hint of judgment. If the person being questioned feels that the questioner has already reached a conclusion or is trying to blame them for the incident, they will withhold information. Without information, there can be no learning as to why the injury occurred.

It is human nature for the person being questioned to assume ill intentions on the part of the questioner. There's a name for it, Hostile Attribution Bias. People are notoriously bad at guessing the intentions of another. They assign overly negative intentions to others and assert overly generous intentions in themselves. The result is the person feeling blamed by the questioner and the questioner feeling their questions are entirely well-intentioned. There is no easy answer to this. The solution is that a layer of mutual trust must be established between both parties long before the questioning starts.

Once the facts have been collected, they must be assembled into a comprehensive picture of each participant's timeline, behaviors, and decisions. Creating a frank assessment requires overcoming two more natural biases.

Hindsight Bias is the tendency, upon knowing the outcome of an event, such as a sporting event, or an injury, to overestimate one's ability to foresee the outcome. In a practical sense, it will seem obvious to the investigator that an injury would result from the decision or action after the injury. To the person taking action, it was not obvious that an injury would result. In fact, they fully anticipated NOT having an injury.

Confirmation Bias is the tendency to process information by looking for, or interpreting, only the information that is consistent with one's existing beliefs and discounting evidence or facts that do not support their conclusion. Hindsight and Confirmation Biases can blind the organization from recognizing their contributions to the injury and focusing on only the employee's contributions.

Every investigation should conclude with an action plan to address all the contributions that led to the injury. An action is not telling the firefighter or EMT to be more careful. The action plan would address the process, procedure, training, or input that answers the question, "Why did they act that way." Here's a tip to help; if you can understand why the action or decision made sense to the person at the time, you can address the mismatch between their anticipated outcome and the outcome (injury) that resulted. Remember where we started, assuming that the person made a reasonable decision with the information they had at the time and within their given and perceived set of parameters. The action plan will most likely have to address one or more of the inputs of the decision or action, not the actual decision or action.

Also on the [MSI Fire & EMS Injury Investigation](#) webpage are three videos illustrating injury investigations to emergency workers and examples of effective action plans.

The Safety Director encourages fire and emergency medical service leaders to attend an MSI LIVE Accident Investigation virtual class. Visit the [MSI LIVE schedule](#) to find the available courses.