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Engineer-Expert A Boon To Defense In Car-Accident Case

Witness Attacks Causation; Matter Is Settled

BY JASON M. SCALLY

While rear-end car-accident cases are among the most difficult matters for defense attorneys to contest, a recent settlement indicates that use of a biomechanical engineer can cast doubt on whether a plaintiff's injuries were actually caused by the collision.

Defense counsel in the case said that although *medical* experts are typically hired to prove or disprove an accident victim's injuries, he hired a biomechanical engineer who provided a definitive, scientific opinion challenging the element of causation.

Settlement Spotlight

In the case of *Fahey v. Salovitz, et al.*, the defendant was faced with a $200,000 demand from a plaintiff who had been rear-ended by a tow truck and claimed extensive lower back injuries.

But because of his planned use of a biomechanical engineer, defense attorney John T. Murray of Taunton said that he was prepared to prove that the plaintiff's lower back injuries could not have resulted from the low-speed rear impact.

"For years in Massachusetts, you go to trial, you bring in your expert and the expert renders opinions about the probable cause of these injuries, and invariably the plaintiff's doctor says he was in an accident and has back pain," said Murray. "Doctors always say it's related, but these [biomedical engineers] can say that at a low speed impact, it's physically impossible to show a lower back injury."

The defense attorney credited the expert's report, which was prepared before trial and shared with the opposing attorney, for helping to accelerate the settlement negotiations. The case ultimately settled for $40,000 — a figure that the defense attorney said was reasonable for his client.

Even though the plaintiff's car looked relatively undamaged, in the case of 'Fahey v. Salovitz, et al.' the defendant faced a $200,000 demand.

While neither Murray nor his biomechanical expert could point to any Massachusetts cases that have gone to trial with a biomechanical engineer providing expert opinion in a rear-end auto case, they noted that such experts have survived *Daubert* challenges in other states and have led to successful results.

Murray said that looking forward in Massachusetts, "this is something that will gather a lot of interest in the [legal] community, particularly in the defense community."

The settlement report for the case appeared in the Jan. 12 issue of Lawyers Weekly.

The plaintiff's attorney in *Fahey* did not return calls prior to deadline.

Low-Speed Impact

The plaintiff in Murray's case was in a Ford Taurus station wagon that was rear-ended by a tow truck. She claimed to have suffered a cervical sprain or strain and to have ruptured the L4 disc in her back.

The plaintiff ultimately underwent surgical procedures that involved a total laminectomy of the L4 and L5 disc, fusion at the L5-S1 and an iliac crest bone graft.

She sued the tow truck driver and the tow truck company, which was working for a Sunoco gas station, and demanded $200,000. The plaintiff allegedly had medical bills of approximately $44,000, and lost wages of $3,100.

Initially, Murray said he thought it was a case with "potentially significant value" because of the medical damages and the special damages claimed by the plaintiff.

"With a rear-end case, obviously they're much harder to defend," he remarked.

Indeed, rear-end accidents have a reputation as "bread and butter" cases, many leading to big wins for plaintiffs. For example, the highest jury verdict last year in Massachusetts was awarded to a plaintiff who was involved in a rear-end collision. (See "Top Jury Verdicts Of 2003," Jan. 19.)

But during discovery in Murray's case, he learned that it was actually "a very minor motor vehicle accident with very minimal damage to both vehicles."

In fact, the damage to the plaintiff's vehicle was appraised at only $1,100, and the tow truck showed almost no damage.

But the most important discovery for Murray was when he learned that the plaintiff had fallen approximately six months before the accident and complained of back pain. She allegedly also saw a chiropractor after the fall.

Although he has handled these types of cases for years, Murray said that after reading an article about biomechanical engineers and their ability to provide low-speed impact analysis, he contacted his client's insurance company to see if they would give him the green light to hire a biomechanical engineer as an expert for his defense of the lawsuit.

He said he felt that such analysis might be able to show that the accident was not the proximate cause of the plaintiff's lower back injuries.

Biomechanical Solution

Murray said he provided his expert with the medical records, damage appraisal and photographs of the vehicles involved in the accident, and from that the expert was able to render an opinion on the plaintiff's most significant claim involving her lower back injury.

"[The biomechanical experts] cannot render an opinion on cervical or neck injuries," Murray explained, "but in the case of a lower back injury, they were able to say, with a degree of certainty, a low-speed impact could not in any way have caused a lower back injury to this woman — it's physically impossible."

Murray said that despite typical claims from people who get hit from behind that they were "thrown forward," his expert's report showed that, in fact, the opposite happens.

"What happens is when you're hit from behind, the car moves forward, but you remain stationary, almost moving backwards into the seat," the attorney explained. "It's because of physics. An object at rest wishes to remain at rest."

Murray's expert was also prepared to explain how the back is the part of the body that is best equipped to handle g-forces that occur in accidents.

Tom Jennings, vice president of ARRCA, Inc., the Boston-based company that provided Murray's expert, agreed and explained that "to be hit from the rear … while the body is seated in the vehicle, the body is in the most protected position that it could be in. That's why when we launch astronauts, they're launched on their back."

While none of ARCCA's biomechanical experts has ever been used at trial in Massachusetts, Jennings told Lawyers Weekly that they have withstood *Daubert/Lanigan*-type challenges in other states such as New York and New Jersey, and have testified as far away as Alaska.

Murray, although himself not aware of any cases in Massachusetts where biomechanical engineers have been used to refute a plaintiff's claim of injuries resulting from a rear-end car accident, said that he believes he could have overcome any *Daubert/Lanigan* challenge to his proposed use of the biomechanical engineer's testimony in this case based on its success in other jurisdictions

Ultimately, the defense lawyer credited the expert's prepared report, which he shared with the plaintiff's attorney, for helping to reach what he believes was a successful settlement for his client of $40,000. The settlement was reached last November, about one month before the case was to go to trial in Bristol Superior Court.

Better Than Doctors?

In rear-end cases, Murray and others observed that doctors are typically brought in as experts by the plaintiff to prove that the alleged injuries were caused by the accident. However, they said that biomechanical engineers would actually provide the most accurate testimony as to causation.

"A doctor is there to diagnose and treat. That's what an MD is trained to do," explained Jennings. "But a biomechanic is trained to determine what was the mechanism of injury — what actually caused the bone to break or the disc to dislocate."

Bradley W. Probst, the biomechanical engineer and Ph.D. candidate used by Murray in his case, said the easiest way to describe his occupation is as "somebody who knows about forces as they are applied to a human body and the body's reaction."

He explained that in order for attorneys to get the most accurate opinion from a biomechanical expert, they should provide the engineer with as much specific information as possible.

"We have to quantify the severity of the accident, so we have to have some photos, repair estimates, inspection [reports] of the vehicle," Probst said. "Once we know the damage, using accident reconstruction techniques we can determine how much energy or force was applied to the vehicle."

The expert added that he needs some information about the person involved in the accident — heights, weights, medical background — "to make sure they're not an 'eggshell' or have some other pre-existing condition."

Jennings said biomechanical engineering experts can also be useful in car accident cases such as Murray's because they are able to determine "how fast would a vehicle have to be going to cause that type of injury."

Although the biomechanical engineer in Murray's case was brought in for the defense, such experts have proved helpful to plaintiffs' cases as well.

Jennings explained that his company is often called upon in products liability cases where defective seatbelts or defective seats have been involved.

But Murray concedes that while using a biomechanical engineer in his case was beneficial, it may not be a good fit for all cases.

"It's something you have to pick and choose on your cases, because there is a significant cost involved," the Taunton attorney said. "In smaller, soft-tissue injury cases where there's not a significant expense, you might not want to spend that money."

However, in his case, facing a plaintiff who claimed significant injuries and had undergone back surgery, Murray and his client's insurance company felt the use of a biomechanical expert was warranted.

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