

Low Speed Collision Facts and Myths
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When an expert opinion is formed regarding damage inconsistencies between vehicles, it must be based on proper technical foundation; the laws of physics, an understanding of automotive engineering / vehicle design, dynamic behaviour during low speed collisions (which could be quite different from high speed collisions), and known experimental crash test results. To conclude that occupant injuries would not be expected as a result of low speed collisions would be inappropriate, especially without performing accurate occupant kinematic response and speed change analysis (for each specific collision in question) in relation to recommended human injury tolerances to specific impacts. The following Myths and Facts discuss some of the opinions that have been heard or read.

Myths	Facts
Motor vehicle bumpers are constructed to “absorb the impact of the collisions.” Low vehicle damage magnitude and repair costs are (automatically) indicative that the impact was “minor”.	Vehicle front or rear Damage may not be apparent since bumpers are primarily designed to protect the vehicle and not the occupants during low speed collisions. Also, vehicle damage tolerances vary significantly.
There is no relationship between vehicle damage, collision speed change or forces and the potential for injury. An accident reconstruction engineer cannot assess the potential for injury.	There are numerous studies conducted by research engineers, biomechanicists and medical doctors that consistently show that there is a direct correlation between collision severity (speed change) and the potential for injury.
“Speeds of 20 km/h aren’t likely to cause the severity of soft-tissue injuries often reported.” Occupant injuries would not be “reasonably expected” or there would not be any “mechanisms for injury” during low speed collisions.	Legitimate Low Speed Collisions do occur and occupants may experience soft tissue symptoms as a result, even if there is minor vehicle damage. Some “transient” symptoms were experienced by human test subjects during crash tests involving speed changes as low as 4 to 8 km/h.
Tom, Dick and Harry did tests, in which there was significant damage, at higher speeds and they were not hurt and therefore no one can be injured at lower speeds.	One must rely upon a scientific/diverse sample of human subjects involved in crash tests (where proper protocol was followed) to assess symptoms or injury tolerances (with an understanding of the limitations of the research).
No one can have lasting injuries as a result of Low Speed Collisions.	No one, not an adjuster, a lawyer, an engineer or even a doctor can make that statement and support it with any conclusive evidence.
Bracing during a crash test/actual collision may be worse than not bracing during low speed collisions.	During scientific crash tests, human test subject “awareness” or “anticipation” in the target vehicle, especially during rear end crash tests reduced the potential for injury.