



WINTHROP FORENSICS

Quarterly

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Winthrop Forensics
is the engineering firm
specializing in:

Accident Reconstruction, Biomechanical / Injury Causation
Analysis, Premises Liability, Product Defect
Forensic Exhibits and Animations

In this installment, we provide a list of the states in which the 'Safety Belt Defense' a.k.a. *Seat Belt Defense* can be utilized. *The Statistical Edge* presents some interesting Holiday Automobile Accident statistical data. Lastly, the *Did You Know?* article covers the topic of WINTerizing your car.



Phone: (615) 353-0533
Fax: (615) 353-0534
info@WinthropForensics.com

Office / Deliveries
6611 Ellesmere Road
Nashville, TN 37205

Mailing Address
P.O. Box 50440
Nashville, TN 37205-0440

Winthrop Forensics, LLC

WINTERizing YOUR VEHICLE

With the temperature dropping and weather getting wet, now is a good time to **WINTERize** your vehicle.

According to a survey performed by the Car Care Council, over 70 percent of motorists admit that they did not have their cars winterized in preparation for inclement weather.

However, several proactive maintenance steps can be performed to prepare your automobile for the winter months. In order to winterize your car, the these checks are recommended:

Antifreeze (Coolant)

Check the level and condition. If coolant needs flushing and refilling, now is a good time.

Battery

Inspect and clean battery posts to insure good connection.

Cell phone charger

Cell phones are prevalent. Keep a dedicated cell phone charger in your car at all times.

Oil

Check the level and condition. Refer to the vehicle manual if lower viscosity "weight" is recommended for cold weather.

Tires

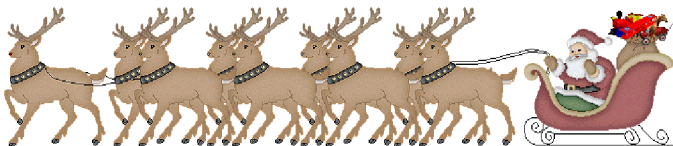
Check for good tread and proper inflation.

Wipers

Inspect the wipers for wear and tear. If wipers are worn/degraded, replace with new blades.

Wiper fluid

Check the wiper fluid level. If low, fill reservoir with vehicle specified wiper fluid.



These suggested maintenance steps can be performed by the Do-It-Yourself method. However, a mechanic can perform these checks. The added benefits of having a mechanic perform these checks is that they can perform extended testing, such as battery testing and charge system checks, and exhaust checks.

To round out the winterization of your car, an emergency kit can be placed in the vehicle as well.

Emergency Kit

Typical items include but not limited to: a flashlight and extra batteries, jumper cables, paper towels, snow brush/scrapper, bottled water and snacks, a blanket and warm clothing. Sand or kitty litter can be used for traction. Lastly, a small tool kit and small shovel can be added as well.



Note:

It is recommended that any person use proper safety gear when performing any maintenance to a vehicle. This includes the use of gloves and protective eye wear.

For further and more detailed winterizing suggestions, visit Edmunds.com or search the internet using the search terms "winterize car".

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Winthrop P. Smith, Ph.D.

Accident Reconstruction
Biomechanics / Injury Causation

P.O. Box 50440
Nashville, TN 37205-0440

Tel: 615.353.0533
Fax: 615.353.0534

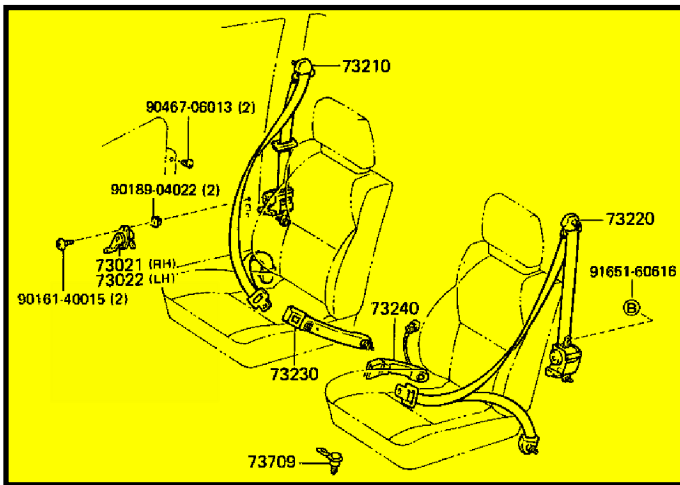
Win@WinthropForensics.com

www.WinthropForensics.com

Did You Know?

MANDATORY SEAT BELT LAWS

Forty-nine states (all except New Hampshire) and the District of Columbia have mandatory safety belt laws. In most states, these laws cover front-seat occupants only, although belt laws in 18 states (Alaska, California, Delaware, Idaho, Kentucky, Maine, Massachusetts, Montana, Nevada, New Mexico, North Carolina, Oregon, Rhode Island, Utah, Vermont, Washington, Wisconsin, and Wyoming) and the District of Columbia cover all rear seat occupants, as well. People in passenger cars, pickups, SUVs, and vans are required to comply with belt laws in most jurisdictions, but in a few jurisdictions occupants of some kinds of vehicles (usually pickups) are exempt.



SAFETY BELT DEFENSE

In the following 21 states (Alaska, Arizona, Arkansas, California, Colorado, Florida, Indiana, Iowa, Kentucky, Michigan, Missouri, Nebraska, New Jersey, New York, Ohio, Oregon, Tennessee, Vermont, West Virginia, Wisconsin, Wyoming) the safety belt defense is allowed to some degree or another.

Several of the states have specific statutes addressing the seat belt defense. In general, damages collected by someone in a crash may be reduced for failure to use a belt.

Example: California Statute and Case Law:

Statute:

Vehicle Code., Section 27315:

In any civil action, failure to wear seat belt shall not establish negligence as a matter of law or negligence per se for comparative fault purposes, but negligence may be proven as a fact without regard to the violation.

Case Law:

In Housley v. Godinez, 4 Cal. App. 4th 737, 6 Cal. Rptr. 111 (1992), the California Court of Appeals held that evidence of the failure of a driver to wear a seat belt may be offered to show that a party acted unreasonably.

The defendant must carry the **burden of proving** that in the circumstances of the case the plaintiff in the exercise of ordinary care should have used the available seat belt.

Further, the defendant must prove what **injuries** the plaintiff would have sustained, according to **expert testimony**, if the seat belt had been used.



Data source: Insurance Institute for Highway Safety and the Iowa State Bar Association

The Statistical Edge

Holiday Collisions: Injury and Fatality Data*

The following data was analyzed for the Holiday Periods of Thanksgiving (6 p.m. 11/23 to 11:59 p.m. 11/27) and Christmas (6 p.m. 12/23 to 11:59 p.m. 12/26) for the state of Kentucky.

Table 1 - 2001 to 2005 Fatal Collisions

Holiday	2001	2002	2003	2004	2005
Thanksgiving	10	3	11	16	12
Christmas	10	2	6	2	3

Table 1 contains the data for the number of deaths over the Thanksgiving and Christmas holiday periods for five (5) years. For the year 2001, there were a total of 20 persons killed for the two (2) holiday periods. This represents the greatest number of fatalities for the five (5) year span, and will be used as the base number for subsequent comparisons. There were a total of 5 fatalities for the 2002 period, which represents a 75% decrease in persons killed from the 2001 data. There were a total of 17 fatalities for the 2003 period, which represents a 15% decrease in persons killed from the 2001 data. There were a total of 18 fatalities for the 2004 period, which represents a 10% decrease in persons killed from the 2001 data. There were a total of 15 fatalities for the 2005 period, which represents a 25% decrease in persons killed from the 2001 data.

Table 2 - 2005 Relevant Collision Data

Holiday	Thanksgiving		Christmas	
	Number	%Total	Number	%Total
Fatal Collisions	11	1	3	0.3
Injury Collisions	233	20.6	243	26.4
Property Damage	888	78.4	676	73.3
Total Collisions	1132	100.0	922	100.0

Table 2 contains the Fatal, Injury, and Property Damage Collision data for the 2005 year. For the 2005 year, 1132 total collisions over the Thanksgiving period as compared to 922 for the Christmas period. There were 3.67 times more fatalities over the Thanksgiving period versus the Christmas period (11 to 3). However, there were 0.96 times less Injury collisions over the Thanksgiving period versus the Christmas period (233 to 243). In a reversal, there were 1.31 times more Property Damage collisions over the Thanksgiving period versus the Christmas period (888 to 676).

From this data, it is apparent that the total number of fatalities for the Thanksgiving and Christmas holiday periods for each subsequent year was less than that of the 2001 year. In addition, more Fatality and Property Damage Collisions occurred over the Thanksgiving Holiday than the Christmas Holiday.

NCAA Men's Basketball Injuries (2004/2005)

With the College Basketball Season getting under way, a review of the injury patterns and frequencies of those injuries is timely.

The data reported here is for 70 NCAA teams (7% of all NCAA Men's Basketball teams) for the 2004/2005 season.

Table A - 2004/2005 Season Data

Game Location	Games	Players Exposed	Injuries
Home	970	11259	100
Away	1079	12030	120
Total	2049	23289	220

Injuries were incurred by visiting players during 11.2% games, where injuries were incurred by the home team players during 10.9% of the games.

Table B - Top Three Body Parts Injured

Injury Rank	Injury Location	Number	%Total
1st	Ankle	59	26.8
2nd	Knee	28	12.7
3rd	Head/Face	24	10.9

The most frequent injuries were imparted to player ankles (26.8%). The second most frequent injuries were imparted to player knees (26.8%). The third most frequent injuries were imparted to the player head and/or face (10.9%).

Given this data, the likelihood of an ankle injury sustained by the home team for any given home game is approximately 2.9%. Likewise, the likelihood of a knee injury sustained by the home team for any given home game is approximately 1.4%. Lastly, the likelihood of a head and/or face injury sustained by the home team for any given home game is approximately 1.2%.

Data source: NCAA Injury Surveillance System (ISS) For The 2004/2005 Basketball Season.