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CIS Proudly Presents:

***“Winter Driving:
When Good Weather Goes Bad”***



A Safe Driving Program

Instructed by:
John Zakariassen,
CIS Senior Risk Management Consultant

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WINTER DRIVING: When Good Weather Goes Bad

A SAFE DRIVING PROGRAM

Instructed By
Senior Risk Management Consultant:
John Zakariassen





Our goals today:

- To inform you of the risks of winter driving
- To offer you tools to reduce accidents
- To help you stay focused on your driving
- To keep this from happening to you!

Motor Vehicle Crash Statistics Annual Estimates	
Crashes	7,000,000
Deaths	43,000
Disabling Injuries	2,900,000

Leading cause of work related fatalities
year after year after year

4

Three Major Causes of Fatalities in Traffic Collisions

- **Safety Belts:** Oregon has a 92.6% usage rate – 4th best in USA... But 50% of MV Fatalities in 2004 were NOT using them
- **Speed:** 50% of all Traffic Fatalities are speed related
- **Impaired Driver:** 1/3 of all MV Fatalities in Oregon are results of an impaired driver

How Serious Is DD?

- NHTSA study released late 2005
- Installed video cameras in 100 vehicles for over a year
 - Almost 2 million miles driven
- 78 of 100 were operated by their owners
 - They knew the cameras were there!

How Serious Is DD?

- 80% of all crashes & 65% of all near crashes
- **“Driver inattention” within 3 seconds of crash!**
- 5 million crashes and 184 billion dollars in damages in the U.S. per year





















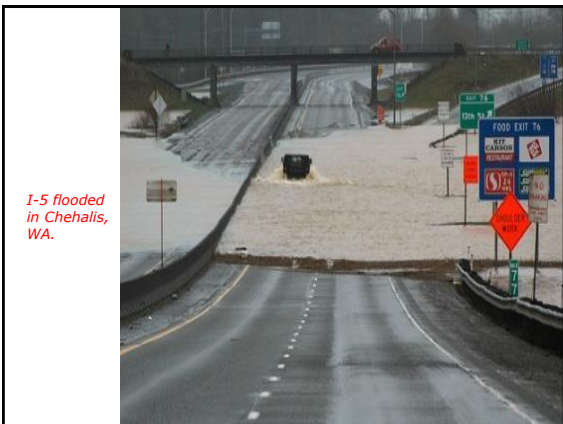






A substantial stretch of SR 542, (Mount Adams in Washington) was buried under mud, silt and debris





I-5 flooded in Chehalis, WA.

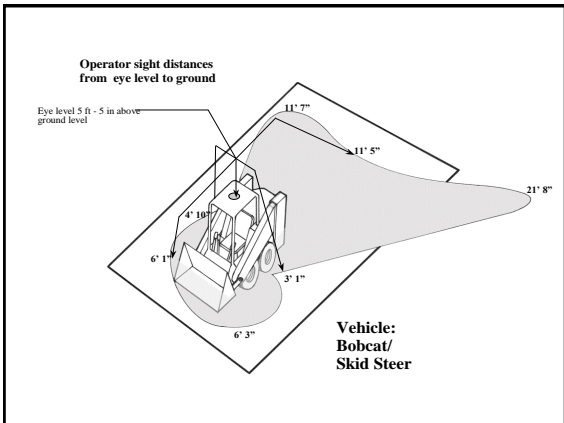
*I-5 flooded
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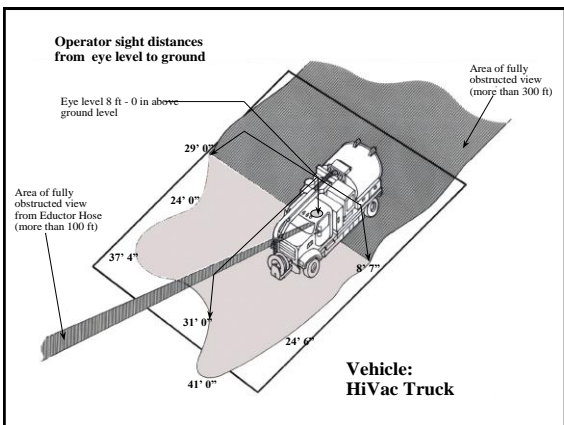


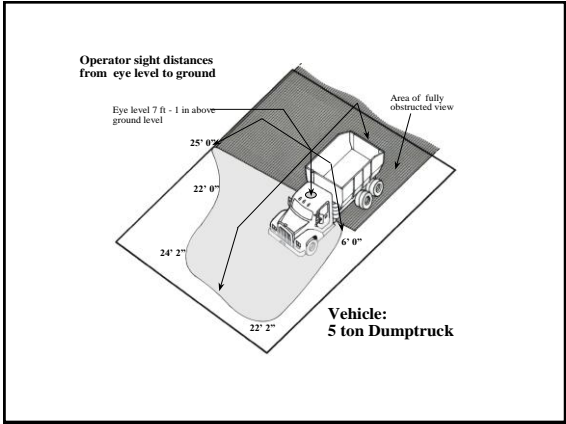


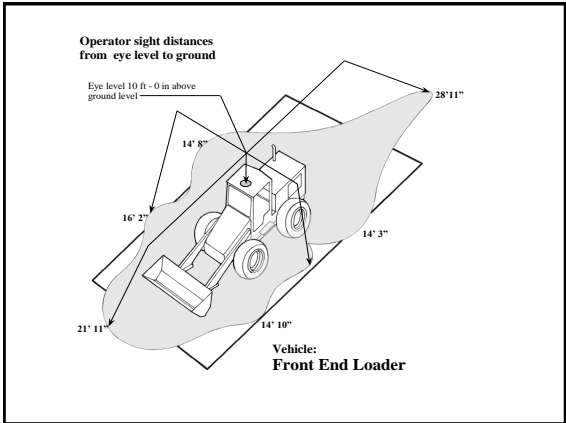














VIDEO “WINTER DRIVING” When The Rules Change

WINTER DRIVING TIPS

Monitor tire pressure

Proper tire inflation is a critical part of tire care and should be checked monthly. For every 5° drop in temperature, tires lose one pound of air pressure, so it's important to monitor tire pressure for fluctuations. Be sure to check pressure when tires are cold, not after extended driving periods.

A better bite

Winter tire tread designs have larger grooves and tread blocks that grip the road better to avoid sliding in snowy, icy or slushy conditions. Tiny razor-like sipes or cuts in winter treads provide a good bite into ice and snow to help avoid sliding.

Four tires versus two

For maximum safety, it is strongly recommend that you install four winter tires at the same time.

WINTER DRIVING TIPS

❖Slow Down for Curves

If you try to take a curve too fast on snowy roads, the truck's front wheels can corkscrew, causing the vehicle to go straight instead of turning. Let up on the gas to correct the problem.

❖Understand 4WD Limitations

Four-wheel drive helps get you moving in snow, but *it does not help you stop*. Slow down - a slick surface requires more stopping distance, no matter what type of vehicle you're driving.

WINTER DRIVING TIPS

- Buckle up before you start driving. Keep your seat belt buckled at all times.
- **SLOW DOWN!** - posted speed limits are for ideal travel conditions. Driving at reduced speeds is the best precautionary measure against any misfortune while driving on slippery roads. "Black ice" is invisible.
- Be alert. Black ice will make a road look like shiny new asphalt. Pavement should look grey-white in winter.
- Do not use cruise control. Winter driving requires you to be in full control at all times.
- Reduce your speed while approaching intersections covered with ice or snow.
- Allow for extra travelling time or even consider delaying a trip if the weather is inclement.
- Drive with low-beam headlights on. Not only are they brighter than daytime running lights but turning them on also activates the tail lights. This makes your vehicle more visible.

WINTER DRIVING TIPS

- Lengthen your following distance behind the vehicle ahead of you. Stopping distance on an icy road is double that of stopping on a dry one. For example, from around 45 meters (140 ft) at the speed of 60 km/h, to 80 meters (over 260 ft) on an icy road surface.
- Stay in the right-hand lane except when passing and use turn signals when changing lanes.
- Steer with smooth and precise movements. Changing lanes too quickly and jerky steering while braking or accelerating can cause skidding.
- Be aware and slow down when you see a sign warning that you are approaching a bridge. Steel and concrete bridges are likely to be icy even when there is no ice on the asphalt surface, (because bridges over open air cool down faster than roads which tend to be insulated somewhat by solid ground.)
- Consider getting off the road before getting stranded if the weather is worsening.
- Be patient and pass other cars only when it is safe to do so.

VIDEO "When Good Weather Goes Bad"

Winter Driving Tips

•Before you leave, scrape all the ice and snow from every window and the exterior side view mirrors, not just a small patch on the windshield. Don't forget to remove snow from headlights and **brake lights**.

•You and your passengers should all use safety belts, both lap and shoulder straps.

•Adjust head rests. Rear-end collisions are common in winter driving and a properly-adjusted head rest can prevent or reduce neck injuries.

•Before you shift into gear, plan the best route to your destination. Try to avoid hills, congestion areas and bridges if at all possible.

Winter Driving Tips cont:

•Don't use a cell phone when driving on ice or snow. Even if you have a hands-free model, you need to concentrate on driving, not on a telephone conversation. The cell phone should be used for emergencies or when pulled off the road safely.

•Drive slowly and remember posted speed limits identify the maximum speed allowed in ideal weather conditions. Law enforcement agencies can write citations to motorists driving the posted speed limit if weather conditions warrant a slower speed. Be alert to the actions of other drivers.

•Anticipate cars coming at you from side streets and put extra distance between your vehicle and the one in front of you. If someone is too close behind you, don't speed up; slow down or let them go around you.

•To make sure other drivers see you, always drive with your lights on. At night, in fog and heavy snow conditions, low beams may be more effective than high beams.

Winter Driving Tips cont:

•Keep a light touch on the brakes. Even with anti-lock braking systems (sometimes called ABS), apply light pressure to avoid locking the brakes and causing a skid. Pumping the brake pedal should be smooth action, going from light to firm. Tip toe to slow is a good motto for winter drivers.

•Keep both hands on the wheel and keep the wheel pointed where you want your car to go. While it may sound overly simple, it could help you in a skid. While manual transmissions may provide greater control to assist with braking, be careful when using downshifting as a way to slow the vehicle. Gear changes, particularly abrupt ones, can upset a vehicle's balance and cause a skid to occur, especially in turns.

•Keep your vehicle stocked with simple emergency equipment in case you do get stalled or have an accident. Consider keeping these items in your vehicle:

Winter Car Kit

So what does one need in an emergency winter car kit? According to Jim Rink, at AAA, these are the items every motorist should have stashed in his or her vehicle: (Keep items in a small duffle bag)

Flashlight and extra batteries, flares or reflective triangle, distress sign, telephone change, first aid supplies, basic tools such as pliers, screw driver, small hammer, duct tape, small shovel, a fully charged cell phone and car charger, tire chains.

Other recommended items are:

Boots, hat, coat, gloves, jumper cables, carpet strips, sand or kitty litter for traction, ice scraper and brush, blanket, chocolate candy (my favorite part)



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WINTER HAZARDS FAQs

1. What is wind chill?

Wind chill is the perceived temperature resulting from the effect of wind, in combination with cold air, which increases the rate of heat loss from the human body.

2. What is frostbite and what can you do to treat it?

Frostbite is damage to body tissue caused by that tissue being frozen. Frostbite causes a loss of feeling and a white or pale appearance in extremities, such as fingers, toes, ear lobes, or the tip of the nose. Frostbite varies in severity from frost-nip to deep frostbite, depending on the length of exposure, temperature to which the skin is exposed, and wind speed. For frost-nip, place firm, steady pressure from a warm hand against the area. Also, blow on the surface holding the frost-nipped area against the body. Do not rub the area, apply snow, or plunge it into very hot or cold water. Victims of severe frostbite must receive prompt medical attention.

3. What is hypothermia and what are the warning signs?

Hypothermia occurs when the body temperature drops to 95 degrees F. or lower. It can develop whenever body heat loss exceeds heat gain. Hypothermia is not exclusive to winter. It can occur during the wind and rain of spring and summer. Hypothermia is often mistaken for fatigue, irritability, or dehydration and may include some of these signs: abnormal decision making; improper response to cold; apathy, lethargy; decreased cooperation; slurred speech; disorientation; shivering; stumbling; and stiffness progressing to inability to move.

4. How do you treat hypothermia?

Treating mild to moderate hypothermia (body temperature greater than 90 degrees F., conscious, shivering, able to walk):

- Prevent further heat loss. Dry, remove from cold, and insulate.
- Re-warm by warming the body core first. Rehydrate with warm broth. Seek medical attention.
- Treating severe hypothermia (body temperature less than 90 degree F., unconscious, not shivering): Prevent further heat loss. Seek immediate medical attention.

5. What are the various winter weather warnings and advisories?

- A winter storm watch indicates severe winter weather conditions may affect your area in the next 12 to 48 hours.
- A winter storm warning indicates severe winter conditions are imminent. There are a variety of warnings including, ice storm warning, lake effect snow warning, and winter storm warning.
- Blizzard warnings are issued when sustained wind speeds or frequent gusts of at least 35 miles per hour are accompanied by considerable falling and/or blowing snow, for a period of at least 3 hours. Visibility is greatly reduced to near zero during a blizzard.
- Winter weather advisories are issued when snowfalls are expected to be hazardous, but less than warning criteria.
- Freezing rain is rain that freezes when it hits the ground, creating a coating of ice on roads, walkways, trees, and power lines.
- Sleet is rain that turns to ice pellets before reaching the ground. Sleet also causes moisture on roads to freeze and become slippery.

Checklist & Tips for Safe Winter Driving

Inspect your tires

Regardless of season, you should inspect your tires at least once a month and always before embarking on a long road trip. It only takes about five minutes. If you find yourself driving under less-than-optimal road conditions this winter, you'll be glad you took the time!

- Check tire pressure and make sure each tire is filled to the vehicle manufacturer's suggested PSI (pounds per square inch) of air pressure, which is listed in your owner's manual and on a label inside the driver's door.
- Keep a tire pressure gauge in your vehicle at all times and check pressure when tires are "cold" — meaning they haven't been driven on for at least three hours.

Look closely at your tread and replace tires with uneven wear or insufficient tread. Tread should beat least 1/16 of an inch or greater on all tires.

Know your car

Every vehicle handles somewhat differently; this is particularly true when driving on wet, icy, or snowy roads. Take time now to learn how to best handle your vehicle under winter weather driving conditions.

- Practice cold weather driving when your area gets snow — but not on a main road! Until you've sharpened your winter weather driving skills and know how your vehicle handles in snowy conditions, it's best to practice in an empty lot in full daylight.
- Drive slowly. It's harder to control or stop your vehicle on a slick or snow-covered surface. On the road, sufficiently increase your following distance so you'll have plenty of time to stop for vehicles ahead of you.
- A word of caution about braking: Know what kind of brakes your vehicle has and how to use them properly. In general, if you have anti-lock brakes, apply firm pressure, if you have non anti-lock brakes, pump the brakes gently.
- If you find yourself in a skid, stay calm and ease your foot off the gas while carefully steering in the direction you want the front of your vehicle to go. This procedure, known as "steering into the skid," will bring the back end of your car in line with the front.

Plan your travel and route

Keep yourself and others safe by planning ahead before you venture out into bad weather.

- Check the weather, road conditions, and traffic; plan to leave early if necessary.
- Don't rush! Allow plenty of time to get to your destination safely.
- Familiarize yourself with directions and maps before you go, and let others know your route and anticipated arrival time.
- Keep your gas tank close to full. If you get stuck in a traffic jam or in snow, you might need more fuel to get home or keep warm. Note: To avoid carbon monoxide poisoning when stuck in snow, be sure to keep your vehicle's exhaust pipe clear of snow and ice, run your vehicle only in the open with the windows partially down, and run it only long enough to keep warm.

If road conditions are hazardous, avoid driving if possible. Wait until road and weather conditions improve before venturing out in your vehicle.

Stock your vehicle

Carry items in your vehicle to handle common winter driving tasks — such as cleaning off your windshield — as well as any supplies you might need in an emergency. Keep the following on hand:

- Snow shovel, broom, and ice scraper.
- Abrasive material, such as sand or kitty litter, in case your vehicle gets stuck in the snow.
- Jumper cables, flashlight and warning devices, such as flares and markers.
- Blankets for protection from the cold.

A cell phone, water, food, and any necessary medicine (for longer trips or when driving in lightly populated areas).

Learn what to do in a winter emergency

If you are stopped or stalled in wintry weather, follow these safety rules:

- Stay with your car and don't overexert yourself.
- Put bright markers on the antenna or windows and keep the interior dome light turned on.

To avoid asphyxiation from carbon monoxide poisoning, don't run your car for long periods with the windows up or in an enclosed space. If you must run your vehicle, clear the exhaust pipe of any snow and run it only sporadically — just long enough to stay warm!

Checklist & Tips for Safe Winter Driving

Get your car serviced now

No one wants to break down in any season, but especially not in cold or snowy winter weather. Start the season off right by ensuring your vehicle is in optimal condition.

- Visit your mechanic for a tune-up or other routine maintenance.
- Have your entire vehicle checked thoroughly for any leaks, bad hoses, or other needed part repairs or replacements.
- If you plan to use snow tires, have them installed now. Check out www.safercar.gov for tire ratings before purchasing new ones. For existing tires, check to ensure they're properly inflated (as recommended by your vehicle manufacturer), the tread is sufficient with no uneven wear, and that the rubber is in overall good condition. Note that tire rubber starts to degrade after several years, and tires need to be replaced even if they have not seen much wear.

Check your battery

When the temperature drops, so does battery power. Plus, it takes more power to start your vehicle in cold weather than in warm. Find out if your battery is up to the challenges of winter:

- Have your mechanic check your battery for sufficient voltage.
- Have the charging system and belts inspected.

If necessary, replace the battery and/or make system repairs.

Check your cooling system

When coolant freezes it expands. Such expansion can potentially damage your vehicle's engine block beyond repair. Don't let this happen to your vehicle this winter!

- Make sure you have enough coolant in your vehicle and that it's designed to withstand the winter temperatures you might experience in your area.
- A 50/50 mix of coolant to water is sufficient for most regions of the country. See your vehicle owner's manual for specific recommendations.
- Thoroughly check the cooling system for leaks or have your mechanic do it for you.
- If your system hasn't been "flushed" (draining the system and replacing the coolant) for several years, have it done now. Over time, rust inhibitors in anti-freeze break down and become ineffective. Coolant also needs to be refreshed periodically to remove dirt and rust particles that can clog the cooling system and cause it to fail.

Fill the washer reservoir

You can go through a lot of windshield wiper fluid fairly quickly in a single snowstorm, so be prepared for whatever Mother Nature might send your way.

- Completely fill your vehicle's reservoir before the first snow hits.
- Use high-quality, "no-freeze" fluid.
- Buy extra to keep on hand in your vehicle.

Check your windshield wipers & defrosters

Safe winter driving depends on achieving and maintaining the best visibility possible.

- Make sure your windshield wipers work and replace worn blades.
- If you live in an area that gets a lot of snow and ice, consider installing heavy-duty winter wipers.
- Check to see that your window defrosters (front and rear) work properly.