



# COLD HARD FACTS

## about winter driving



It's coming and we can't stop it, but we can do some things to try and take the "excitement" out of winter driving!

Winter provides us with some of the worst driving conditions: snow, sleet, ice, and bone chilling winds. Unfortunately, we cannot control the weather or take vacation from the winter. Regardless of training, experience, or expertise, a driver can be forced into an emergency situation. Expect other drivers to make mistakes, and compensate for their mistakes by driving defensively.

A driver's reaction can make the difference between a close call and a catastrophe. The information in this booklet will help you to react in the most informed and safe way possible.

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# PREPARE YOUR VEHICLES

*Your vehicles need regular service, so get it done now. Bad hoses, belts, water pumps, spark plug wires, etc. can leave you stranded in winter. Get them fixed or replaced now so that you and your passengers don't have to spend hours waiting for a tow truck in the cold.*

## Battery

Make sure the battery and charging system on your vehicles are up to snuff. Your battery can leave you stranded because it is old, or because your charging system isn't working well and the battery isn't being charged properly. The battery that started your vehicle easily in the summer may not have enough power to do it in the winter—in cold temperatures, the oil isn't as "fluid" as it was in July. So not only do you need more power to start the engine, but batteries lose power faster because of it. If you need to replace the battery, get the biggest one that will fit in your vehicle.

## Cooling System

Overheating is not just a summer problem; motor vehicles can and do overheat in winter also. It is a simple process to check the freeze rating of a vehicle's coolant with a device sold in auto part stores. Make certain you have a 50/50 mix of antifreeze to water in your vehicle radiator. Believe it or not the 50/50 mix has a lower freezing point and a higher boiling point than the straight stuff. So mix it up! If you have leaks in the cooling system, take care of them now. Overheating can cause expensive engine damage. Plus, if you have no coolant – or low coolant – you have no heat.

## Windshield Wipers

Be sure your current wiper blades clean the windshield well and allow you to see clearly in wet weather. Even when there's no active precipitation, water from melting snow and slush from tires of other vehicles is often thrown up onto your windshield. Also make sure your windshield washer reservoir is full. On a snowy day, you can easily go through half a gallon or more of windshield washer fluid.

## Quick Fact

Walking on ice and snow can be treacherous since the soles of shoes or boots are warm enough to melt snow and ice, creating a film of water between the sole and the snow or ice surface. When walking on snow or ice, use short steps and keep your hands out of your pockets. Remember, it may be safer to walk in snow than on ice.

## Fuel

Keep your fuel tank close to full. Driving with a full tank of fuel helps to prevent fuel line freeze-up and provides extra ballast in the rear of the vehicle. If you get stuck or stranded, the engine will be your only source of heat, and you can run the engine at idle to stay warm for as long as you have fuel. No harm will be done to the engine—just make sure to crack a window open a bit, and if it is snowing make certain to keep the area around the exhaust clear of obstructions.

## Block Heaters

Each New Jersey Transit 5310 vehicle has a block heater, a small electric engine heater that plugs in at night and virtually guarantees that your vehicle will start, even on the coldest mornings, and that you will have instant heat. Just remember to unplug the heater before you drive away!

## Tires

In our business, we have to drive in the snow, so be sure to get good snow tires. Nothing will make a bigger difference. They not only help you get moving in snow, they also increase your traction when you are braking and turning.

## Before You Leave the Garage

Once snow or ice arrives, take extra time to make sure your vehicle is cleared and your visibility is good. New Jersey state law requires that you clean off your entire vehicle. Make sure the roof, hood, trunk, headlights, and brake lights are clear by using a snowbrush and ice scraper. Be sure to remove snow and ice from all heater air inlet slits (usually at the base of the windshield), otherwise you might find your initially clear windshield fully frosted two or three minutes after you have started driving, due to snow vaporizing and refreezing on the windshield. When you are cleaning the outside of your vehicle, idle the vehicle with the heater on floor mode, not defrost mode.

## Quick Fact

According to New Jersey state law, when snow or ice is dislodged from a moving vehicle and strikes another vehicle or pedestrian causing injury or property damage, the operator, owner, lessee, or bailee of a commercial motor vehicle can be fined between \$500 and \$1,500 for each offense.



# BAD WEATHER DRIVING

*Now that you've prepared your vehicle, prepare to cope with winter weather and bad driving conditions once you hit the road. Here are six primary hazards you will encounter and must overcome.*

## **Your Disposition and the Disposition of Others**

Remember, bad weather shortens everyone's tempers. Anticipate unpleasant reactions from other drivers, your passengers, fellow employees, and even yourself. When traffic is heavy and the going is slow, stay calm. If you allow yourself to become impatient or angry, you might take it out on your passengers or become careless and have an accident.

## **Reduced Visibility**

Make sure your headlights are clean and clear of snow and that windshield wipers work properly. Have paper towels available to clean outside mirrors throughout the day. Help others see you and increase your own visibility by turning on low beam headlights and be certain to use turn signals well in advance of turns. Do not drive with the heater in recirculation mode. Doing so re-circulates interior air that keeps increasing in humidity – from melting snow you have brought in and from your own breath. That moisture rich air creates frost on the inside of the windows, usually much faster than the defroster can clear it. Finally, get a quality pair of sunglasses. Daylight reflection from snow can cause glare brighter than most beaches in July.

## **The Effects of Temperature**

If the outside temperature is near 32 degrees Fahrenheit, expect road conditions to be icy—at these temperatures, roadways are five to ten



times more slippery than normal. Keep this in mind especially in the early morning and nighttime hours when the sun isn't out to melt the ice. But daylight isn't necessarily your ticket out of danger. Did you ever realize that a melting ice cube is much more slippery than one taken directly from the freezer? During daylight hours, ice and snow may begin to melt producing a layer of water that can turn a roadway into an Olympic bobsled run.

## **Inadequate Traction**

In winter weather, you will have problems pulling away from stops, getting up hills, or negotiating snow. If your rear wheels spin upon starting, or your vehicle side-slips, release the accelerator and then apply it again gently while your wheels are straight. Poor traction also makes stopping difficult, and increases stopping distances to 250 feet or more at 20 mph. That's almost ten times the distance needed to stop on dry pavement. If the vehicle you are driving begins to skid, you must regain directional control. To do this, turn the steering wheel in the direction you want the vehicle to go with your foot off of the accelerator and covering the brake pedal.

**Quick Fact** Bridges and overpasses are surrounded by cold air and have no natural ground to warm them, so they are the first to freeze. Take extra caution!

## **Steering or Stopping Problems**

Steering is extremely delicate on ice and snow. Posted speed limits become meaningless in bad weather—schedules are important but safety is first. Reduce your speed by 5 miles per hour or more so that you have better control of your vehicle. Forces that tend to throw your vehicle into a skid are increased as you come down a hill or steer into a turn so steer and accelerate slowly and gradually. Avoid quick or abrupt turns. Anticipate stops and gradually slow down, especially when approaching intersections.

## **Unexpected or Unusual Conditions**

Keep alert for children throwing snowballs and warn your passengers of this seemingly harmless hazard. Advise them to look away from the windows because of the possibility of breaking glass. Be alert to vehicles backing out of driveways, and be prepared to avoid and slow down for people walking in the street because of snow-covered sidewalks.



# ALERTNESS EXERCISES

The demands of winter driving and having to remain seated for long periods of time can cause stress and fatigue. Stretching exercises for your muscles and even your eyes can help relieve tension, restore flexibility, or stimulate blood circulation. Use the simple stretching exercises below to keep yourself alert and feeling good without even having to leave the driver's seat.



Consult your physician or health care provider for advice specific to your particular needs.

Make sure to ask whether the following exercises are appropriate for you.

## FOR THE EYES

Do your eyes water or your eyelids twitch? Does the part of your forehead around your eyebrows seem to ache, or do you notice a burning sensation when you close your eyes? You may be suffering from eye strain. It's a common affliction that can occur after the eyes are taxed from prolonged periods of driving. Here are some tips to try to reduce the effect of eye strain.

### Blink and Yawn

This helps to produce tears that moisten and lubricate the eyes.

### "Palm"

Cup your hands over your eyes and let your weight fall forward. Now close your eyes and inhale slowly through the nose. Continue deep breathing for 30 seconds.

### "Stretch" Your Eyes

Slowly and gently move the eyes up toward the ceiling, then slowly down to the floor (while keeping your head stationary). Repeat three times and then move the eyes slowly from left to right (also repeating a few times).

### Change Focus

Hold up your index finger a few inches in front of your nose. Focus on this finger as you slowly move the finger away until your arm is outstretched. Now focus into the far distance (outside of the vehicle) for a few seconds and then back to your outstretched finger. Slowly bring the finger back to within a few inches from the eye. Repeat three times.

## FOR THE BODY

Your body can tighten up from sitting in one position for too long, particularly given the stress of driving in bad weather. Here are some exercises to try to avoid head, neck, and back discomfort.

### Cleansing Breaths

Open a vehicle window just a little. Shake yourself all around to limber up, and then let your arms hang limp. Take a deep breath, hold it for a little while, and then slowly exhale. Repeat, but this time purse your lips as if you were going to whistle. Start exhaling forcefully, little by little. The effort of the exhalation should be felt in the chest and back.

### Overhead Pull

Grasp the back of your neck with your right hand. Reach over and grab your right elbow with your left hand. Now gently tug on your elbow to give your right shoulder and side a nice stretch. Alternate until you feel loosened up on both sides of the body.



### Shoulder Bunch

Sit up straight with your shoulders relaxed. Now bunch up your shoulders until they feel tight, hold for a few seconds, release, and repeat.

### Head Rolls

Sit up straight with shoulders relaxed. Drop your chin to your chest and start to gently roll your head around in wide circles. Switch directions every so often until you feel the stiffness go away.

### Twist

Place your hands in your lap. Cross your right ankle over your left (or cross your legs if you are able). Gently twist your body to the right and look over your shoulder. Switch legs and twist in the opposite direction. You should feel a nice stretching sensation.

## FOR THE EXTREMITIES

Are your hands sore and shaking from gripping the steering wheel? Have you begun to lose feeling in your legs? To help regain the fine motor control in your limbs and improve circulation, try the following:

### Reach Out

Raise both arms in front of you, palms down, elevating the arms a little higher than your shoulders. Reach forward – really stretch – then relax but don't drop your arms. Repeat two or three times. Now do this exercise two or three times with your palms up.

### Run in Place While Seated

While in your seat, raise your legs up and down off the balls of your feet, alternating legs as if you were running.

### Give Yourself a Round of Applause

Vigorous hand clapping will not only help to get the circulation going, it will also provide a boost to your spirits.



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