

Introduction

We all know that in Britain, winter weather can be difficult at best, and at worst hazardous and even life-threatening.

At GEM, our primary commitment is to ensure the highest standards of safety for everyone on our roads. We've put together this eBook as a resource for drivers as we enter the winter months. By bringing together this collection of advice, checklists and hints we hope you'll have all of the information you need to prepare for this winter season.



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Planning your journey

Planning a journey is even more important than usual during winter. Ask these questions before leaving:

What conditions can I expect?

Check the Met Office for weather predictions and any warnings for your journey both to and from your destination. Listen to radio broadcasts for additional local information.

Is my journey completely necessary?

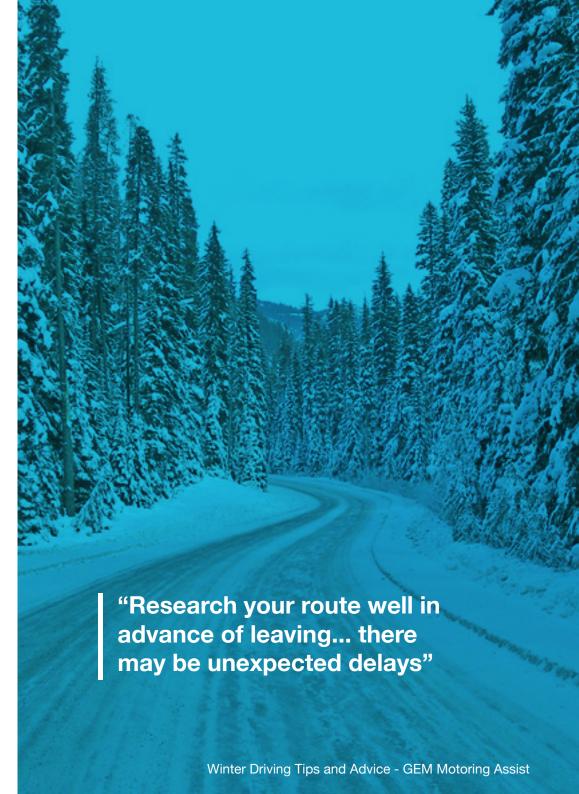
On days where bad weather is predicted, only essential travel is advisable, especially if you're travelling in rural areas.

What is my route?

Research your route well in advance of leaving. There may be unexpected delays or incidents that will affect your travel. Google Maps and Michelin both provide comprehensive route planners, as do a number of smartphone apps.

What do I need?

See page 6 for a list of the things you should have in your car.



Checklist for Lights, Tyres and Windscreen



Check all lights are in working order, including your front and rear fog lights.



Make sure your number plates are clearly visible from the front and rear.



Replace burned-out bulbs and remember to clean road grime from all lenses when washing the car. You need to do this more frequently in winter months.



Check that wiper blades are not worn or damaged. If they are leaving smears across your windscreen, it's time for new blades.



Test your horn.



Split, cracked or perished wiper blades will lead to an MOT test failure.



Check tyre pressures and the tread depth. A minimum of 1.6mm over at least three quarters of the tread width is the current legal requirement, but you should replace tyres well before they reach this level.



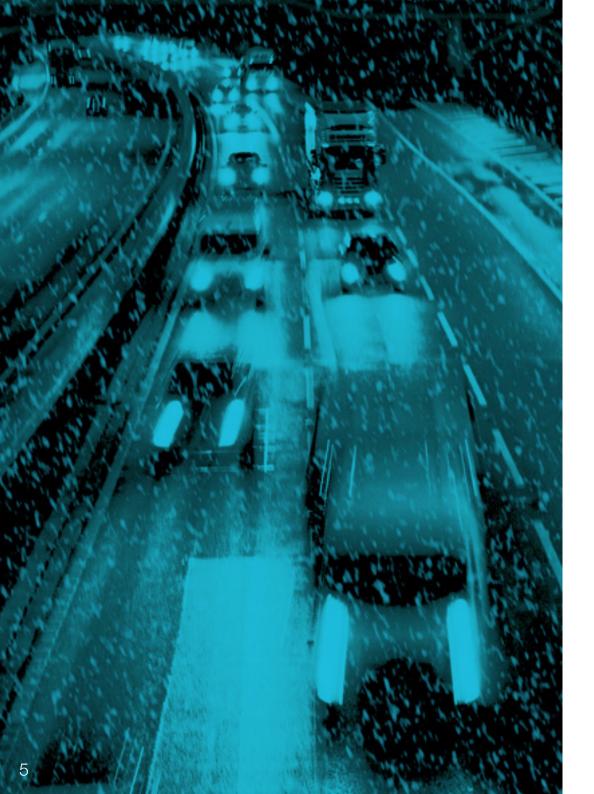
Clean the windows, inside and out, and wipe the lamp lenses and door mirrors.



Examine tyres for signs of uneven wearing and for any cuts or small nicks in the sides of the tyres.



Keep a can of de-icer and an ice scraper in the car. De-icer can also be used to defrost doors and petrol cap locks.



Maintenance

Have your car comprehensively and professionally surveyed at the start of the season, with particular attention to brakes.

Check oil and water levels regularly and use the manufacturer's manual if you need guidance.

Keep a bottle of water in the car to top up your windscreen washer in an emergency; it is an offence to drive with your windscreen washer empty.

Before you leave What to pack

Though carrying all these items may seem like excess baggage, if there is ever an emergency you don't want to be caught short – any of these items can be a life-saver, and it's always best to be cautious.



You should always pack the following:

- Breakdown membership details store the number in your phone or wallet
- Mobile phone make sure you've downloaded the free GEM Motoring Assist app
- High-visibility clothing
- Ice scraper and de-icer
- Spare clothes and blankets
- Cash
- Torch with extra batteries
- Food
- A flask for a hot drink, plus bottled water
- Sunglasses to minimise glare from the snow

For longer journeys or rural journeys, carry:

- First aid kit
- Jump leads
- Phone charger
- Small shovel
- Any important medications
- Road atlas (very important in case GPS systems lose battery)

On the road

Driving conditions



Falling snow reduces visibility so always switch on your dipped headlights. Lack of adhesion can occur even on treated roads so drive slowly in the highest gear possible, manoeuvre gently and avoid harsh braking.



Fog requires particular attention to your surroundings.







- Do not hang on to the tail lights of the vehicle in front as it can give a false sense of security. When you slow down, use your brakes so that your brake lights warn drivers behind you.
- If there is a sign warning of fog, be prepared for a bank of fog ahead even if the road is apparently clear – fogs are unpredictable and can be patchy and fast-moving.



Heavy rain will reduce visibility, particularly from vehicle spray. Always use your dipped headlights, reduce speed and travel at a further distance from other cars. At night, wet conditions worsen the glare from headlights so again, slow down.



Hail can occur unexpectedly; slow down and use dipped headlights – if the hail storm is bad, pull over under a shelter if possible. After a hailstorm the road surface will be slippery so drive carefully.



Ice is not always visible on roads, so if you suspect that the road surface is covered in ice, drive even more carefully than usual. Slow down, steer gently and avoid sudden braking.

On the road

Winter driving hazards

What is black ice?

Black ice is the name given to ice that forms with few air pockets and is therefore practically transparent and very difficult to see on the road – it simply looks like a wet road surface.

Black ice driving techniques

Be aware that stopping on black ice can take up to nine times longer than normal, so your stopping distance and handling will be impaired. Slow down and take extra precautions.

What is aquaplaning?

Also known as hydroplaning, this is when water builds between the tyres of a vehicle and the surface of the road, which reduces traction

Aquaplaning driving techniques

The best strategy is to ensure proper tyre pressure and ensuring there is plenty of tread depth. Reducing speed and avoiding standing water are also important to avoiding aquaplaning.



What should I do if I get stuck in the snow?

First of all, don't panic! Try and manouevre your car to the side of the road and come to a stop. Unless you are extremely close to buildings with people inside, always stay with your car as it will protect you from the elements.

Keep the exhaust pipe unblocked so that if you need to run the engine to keep warm, there is no danger of carbon monoxide build up. Try and clear snow from your roof and hood so that it can be easily seen, or put something brightly coloured on top for visibility.

On the road

Winter driving myths

Here's a reference for debunking some of the myths you might have heard about driving in winter:

Myth #1: ABS is bad for winter driving

While it's true that ABS can increase your stopping distance in slippery conditions, it prevents your wheels from locking up and allows effective steering rather than losing control. Learn how to use it effectively and drive within its limitations – this is a highly effective safety system that can save lives.

Myth #2: You should turn off traction control during snow

Most traction control systems can reduce engine power or apply brakes when wheels start spinning. When there's snow on the road, these systems are useful as they are good for maintaining traction and keeping your car on the road. However, if you're stuck in deep snow, a reduction in power can hinder progress so in conditions like these, the system should be switched off temporarily.

Myth #3: Cadence braking is a useful technique for modern cars

Cadence braking is the process of applying and then releasing brakes so that a car can both steer and brake on slippery surfaces. It is only effective in cars that are not fitted with an ABS system (which the majority of new cars do).

Myth #4: Lower gears are better for wet conditions

This is not a blanket rule. There are times when low gear can be highly effective and when higher gears are more desirable. For instance, when pulling away in slippery conditions, selecting the highest possible gear reduces torque and the chance of wheel-spin. However, when descending a slippery hill, low gears are useful. Applying the brakes encourages the wheels to lock, whereas engine braking reduces speed while at the same time keeping your wheels rotating – thus preventing wheel lock-up and maintaining your ability to steer.

Do's and Don'ts in the case of a breakdown



DO

Pull over as soon as you can, using the hard shoulder to slow down before stopping.

DON'T

Try to fix your car yourself by the motorway – always wait for a professional.

DO

Stay inside the vehicle. Make sure it's stopped somewhere safe, and then stay put to protect you from the elements. This rule does not apply if you breakdown on the motorway (Highway Code Rule 275).

DON'T

Keep the engine off if you're stranded – turn it on for a few minutes each hour.

DO

Clear the snow from the roof and hood for visibility. This is especially important in remote locations.

DON'T

Try to dig the car out. You will tire yourself out and dampen your clothes through sweat which will leave you more susceptible to the cold.

Driving abroad

With many of us making the most of winter weather by going on ski resort holidays, it's important to remember that winter driving in a foreign country requires extra levels of preparedness.

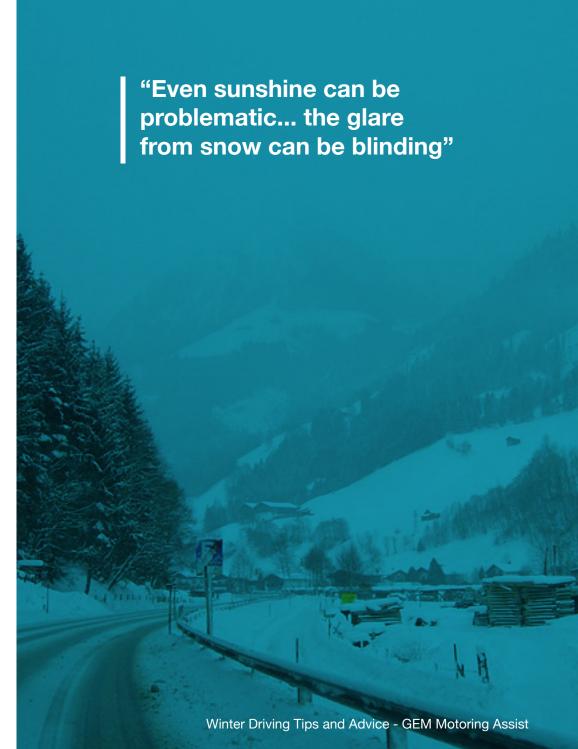
What to expect

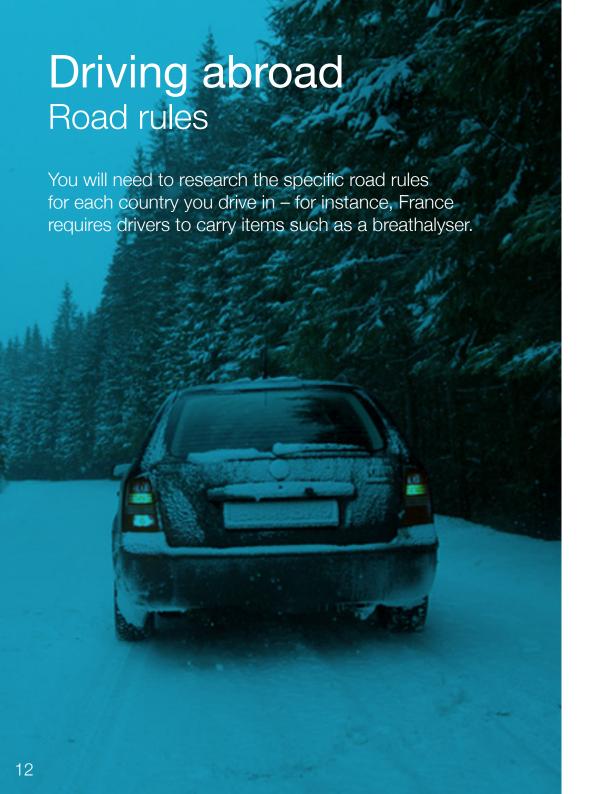
Drivers know that any journey can present the unexpected, and winter journeys in particular can throw all kinds of unusual events at drivers. Ice, snow, rain, freezing rain, fog, frost and wind are all part of winter hazards. Even sunshine can be problematic in winter, as the glare from snow can be blinding.

Driving safely on the slopes

Considering that the closest ski resorts to the UK are at least an eight-hour drive from Calais, it's vital to plan breaks and if possible, share driving.

If resorts are much further, you will need to factor in an overnight stop. Journeys in the USA and Canada for instance are usually much longer, so don't get caught out without accommodation.





There will also be rules associated with winter driving, and most countries will have the following as basic requirements:

- Antifreeze fluid in the wiper and windscreen water is essential.
- The car has to be equipped with winter tyres, an ice scraper and a brush.
- Snow chains are required if heading for a hilly or mountainous region.
- Snow tyres must be used for winter driving.
- All windows of the car have to be clean to provide a full view around.
- The number plates and lights have to be kept clean.
- The car roof and bonnet must be cleared of snow and ice lumps.
- If the driver causes an obstruction or collision due to the lack of winter equipment, the fine is higher. The rear fog lamp may only be used in fog with less than 50 metres visibility, not in rain or snow. Lights must be used in dark weather (though many countries now require that lights be used at any time and in any weather).



Driving abroad

Snow tyres and snow chains

Countries that have harsh winters usually have specific safety regulations regarding tyres, driving and snow chain use. Police roadblocks on mountain road approaches to ski resorts are common throughout the Alps and in any other mountainous areas.

If you arrive at an 'obligatory snow chain' zone (marked with a sign) without snow chains, you will not be allowed to proceed without them and might even be fined.

Fitting snow chains

If you're inexperienced, make sure you practice fitting snow chains a few times before it's actually snowing – they are quite fiddly, so you will want to be as comfortable with the process as possible.

Bear in mind that it is illegal to drive with them when it's not snowing. Snow chains should be used when grip is reduced due to falling or settled snow. There are usually signs telling motorists that they must be fitted, so when this occurs, continue to the next lay-by before fitting your snow chains and proceeding.

About GEM Motoring Assist

Established in 1932, **GEM Motoring Assist** is a UK based road safety organisation. GEM also offers breakdown cover providing a friendly, reliable and responsive service for it's members.

For more information on our road safety work visit: http://www.motoringassist.com/the-gem-story/road-safety-charity/

For motoring advice visit: http://www.motoringassist.com/motoring-advice/

