more tire-to-snow contact. However, don't deflate tires below 18 psi, and stop at the first opportunity to re-inflate them.

Adding Weight

Adding extra weight (sand bags, cat litter, etc.) to the trunks of two-wheel drive cars or beds of two-wheel drive pickups can improve traction and the ability to accelerate from stop signs, climb hills, etc. However, don't add more than about 250 pounds and keep driving speeds at less than 50 mph, as the extra weight could cause the car to whip around into a dangerous backward skid.

Also, make sure weight is secured so that it won't shift, be propelled forward, or become airborne in an accident.

4-Wheel VS 2-Wheel Drive

In general, the average four-wheel drive vehicle will outperform one with two wheel drive in making forward or rearward progress. However, there is **no difference in their ability to stop**.

Emergency Winter Supplies

It's important to carry emergency supplies in your vehicle in the event you are stranded in winter conditions. At a minimum, have flares, tire chains, blankets, first aid kit, snow shovel, jumper cables, tow rope/strap, drinking water, and nonperishable food. You might also want to consider carrying a cell phone, bags of sand or cat litter (for extra weight and/or traction), and a change of clothes and shoes.

Most of all, when roads get slippery, slow down and anticipate what could be coming around the next curve.

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Safe Winter Driving:
Avoiding the Skids

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Think Safety. Act Safely!

The combination of hills and snow or ice makes for hazardous automotive travel in the winter months. Following are some tips that might save you from an injury or expensive fender bender this winter.

Choosing Winter Tires

The type of tires best for your vehicle depends on the conditions you are most likely to face. In general:

- Radial tires are better than bias ply.
- Deep cleat mud and snow tires are good in slush, mud, or deep snow, but not better than conventional tires on glare ice.
- Studded tires are great for ice, but without an aggressive tread, are not better than conventional snow tires in deep snow.
- All-weather radial tires are a compromise: they do fairly well in mud and deep snow and on ice.

Tire manufacturers have developed rubber compounds that stay pliable when the temperature dips well below freezing. In addition, many winter tires are siped (small, razor-like cuts in the tire's tread that present edges that grab).

In deep snow or really icy conditions, tire chains are best. However, be aware that they tend to fly off or come apart at speeds greater than 50 mph.

Braking

If your car has an anti-lock braking system (ABS), use a steady, firm pressure on the brake pedal to slow down or come to a non-skidded stop. With non-ABS braking systems, use a lightly-pressured pumping action on the brake pedal. If you have a manual transmission, depressing the clutch when braking will help slow the vehicle, and with an automatic transmission, put the car in neutral.

Testing Road Conditions

When you first pull out onto the road, <u>if it is safe</u>, apply the brakes hard after getting up to a speed of 10 mph to see if the tires slide. Be sure to let off the brakes immediately if the tires slide so you don't lose control. Repeat this process to determine how hard you can brake without causing your car to skid. Also accelerate a bit to see how much it will take to make the drive wheels spin.

Wheel Spin

Slippery conditions cause excessive spinning of drive wheels when too much power is applied. When the car doesn't accelerate as usual, the natural impulse is to "give it more gas." The friction created by the spinning tire builds up heat, which melts the snow or ice, creating a microscopic lubricating film of water between the tire and the snow or ice.

When the tires break loose and start to spin, let up on the accelerator or push in the clutch. When the wheels stop spinning and catch hold, <u>gently</u> apply power again.

If your vehicle has a manual transmission, starting out in 2nd gear may produce less wheel spin than 1st gear due to decreased engine power being applied.

Recovery from Skids

When a skid occurs, take your foot off the accelerator and steer the front wheels in the direction of the skid until control is regained.

With front wheel drive cars, it's usually necessary to apply some power to the wheels to help pull the car straight when the rear wheels skid. However, this requires careful execution in situations where you don't want to increase speed (downhill grade, tight corner, stop signs, etc.).

To reduce the risk of skids, put studded tires on all four wheels. At safe speeds, studs will help resist the tendency of the rear end of the car to try to catch up or pass the front end when braking. In fact, many tire stores will not put studded tires just on the drive wheels of front wheel drive cars, as it becomes dangerous when the front tires have decidedly more traction than the rear.

Getting Stuck in the Snow

Sometimes you can get unstuck by carefully rocking the car back and forth by shifting between forward and reverse and gently applying the accelerator. Since excessive rocking can damage the engine and transmission, if you don't get free in a few minutes, stop. A tow truck is less expensive than a new transmission.

If stuck in deep snow, reducing the air pressure in the drive wheel tires achieves