

## Hydroplaning

Water on the roadway can have serious effects on driving. When your tires hit puddles of water on the roadway, the vehicle's wheels have to push water out of the way before hitting pavement. This action tends to pull your vehicle to the right or left, or slow the vehicle down. This situation is short-lived and normal traction and speed returns. Whenever this type of water condition exists on the roadway the driver should reduce his or her speed. A longer duration contact with water on the road surface is called hydroplaning.

When traveling over a film of water at speeds over 35 mph, the tires tend to lift off the pavement and ride on the surface of the water. Tires that are worn or bald increase the potential for hydroplaning. The weight of the vehicle has very little effect on reducing the potential to hydroplane. Speed is the key factor, as the faster you go the more likely you are to hydroplane. Hydroplaning is the result of your tires moving too quickly across a wet surface, so that there is not enough time for the tire to channel moisture away from the center area of the tire. Again, the result is that the tire lifts off the roadway surface.

The remedy for the above roadway conditions is to reduce your speed and anticipate the problems associated with wet roads. If you are in heavy traffic and hydroplaning is a possibility, then increase your following distance and reduce your travel speed. This will give you more time and space to come to a stop and or make a turning maneuver to avoid hitting a vehicle in front of you.

### **Factors that can contribute to hydroplaning include the following:**

**Tire size** - the size and shape of a tire's contact patch has a direct influence on the probability of a hydroplane. The wider the contact patch is relative to its length, the higher the speed required to support hydroplaning.

**Tire tread pattern** - certain tread patterns channel water more effectively, reducing the risk of hydroplaning.

**Tire tread depth** - as your tires become worn, their ability to resist hydroplaning is reduced.

**Tire pressure** - keep your tire pressure within the manufacturers recommended pressures.

**Water depth** - the deeper the water, the sooner you will lose traction, although at higher speeds even thin water layers can cause a loss of traction.

**Water composition** (oil, temperature, dirt, and salt can change its properties and density)

**Vehicle drive-train** - because of their computer-assisted differentials, all-wheel-drive vehicles are more likely to hydroplane than two wheel drive vehicles in certain situations. A sudden uncontrolled transfer of power from the front tires to the rear tires can put a hydroplaning AWD vehicle out of control.

**Vehicle speed** - as speed increases, wet traction is considerably reduced. Since hydroplaning can result in a complete loss of traction and vehicle control, you should always reduce speed.

**Road surface type** - non-grooved asphalt is considerably more hydroplane-prone than ribbed or grooved concrete surfaces.

*Alteris Insurance Services provides the above program information in order to reduce the risk of insurance loss and claims. The information provided is not intended to include all potential controls or address any insured specifically. Alteris also does not warrant that all loss and/or claims will be avoided if the program information is followed. By providing this information, Alteris in no way intends to relieve the insured of its own duties and obligations, nor is Alteris undertaking, on behalf of or for the benefit of the insured or others, that the insured's property or operations are safe, healthful, or in compliance with any law, rule or regulation. Insureds remain responsible for their own efforts to reduce risks and should consult their own legal counsel for appropriate guidance.*