

NIGHT BLINDNESS

Night blindness occurs when the eye is accustomed to low levels of light and the light intensity suddenly rises. For example, assume you are driving on a dark two-lane road, and the glare of an oncoming vehicle's high beams suddenly appears. The vehicle flashes past and for the next few seconds you are blind. The eyes adjust to the new light level by contracting the pupils, but if that level of intensity is only momentary, then the eyes have to readjust to the lower level again by dilating the pupil. *While the eyes make this adjustment, your vision is impaired for several seconds – you have experienced night blindness.*

During the day about 85 percent of the information we need to drive a car is visual, but at night this changes. Without enough light, we lose much of our ability to distinguish objects from the background (contract sensitivity) and the ability to recognize objects at the edges of our visual field (peripheral vision). When driving at night with headlights, we can only see about 350 feet of the road ahead. At 60 miles per hour, a car will cover 350 feet in four seconds! Therefore, slower driving speeds will allow you more time to spot a hazard and respond in a crisis. (And pedestrians should wear light-colored clothing or put reflective tape on their clothes to make themselves more visible in the darkness.)

If a driver turns his head from side to side, it will help make up for the lost side vision that occurs at night. If the driver must wear glasses to drive, frames that have thin sidepieces should be selected, since wide sidepieces will hinder side vision.

As we age, the lenses of our eyes become yellowed and we need more light to see. Most of us begin to notice this in our 40's. By the age of 65, we need 2.5 times the light that we needed when we were 20 to see the same level of detail. For this reason, older persons should drive slower when they drive at night.

Below are some suggestions for driving safely at night.

- Drive within the range of your headlights, not by what you think you see beyond their range.
- Adjust your rear view mirror to the "night" setting to dim headlight glare coming from behind.
- When the glare is gone, reset the mirror to the "day" setting.
- Focus eyes on the right edge of the pavement to avoid being blinded by oncoming headlights.
- Clean your headlights.
- Clean your windshield, inside and out.
- Keep your eyes moving between the road and the rear-view and side-view mirrors.
- Use your high beams when you can.
- Take off sunglasses at dusk; do not wear sunglasses at night!
- Turn your head from side to side to increase your peripheral vision.
- Dim your instrument lights to reduce brightness when you look at them.
- Do not drive faster than 65 mph at night.
- Do not put dark aftermarket tinting film on windows or windshields.
- Do not depend on fog or parking lights only when driving at dusk or dawn.
- Do not keep you high beams on when another vehicle approaches.
- Do not exceed the speed for driving conditions at night in rain, snow, or fog.

- Do not turn your interior lights on while driving your vehicle.
- Do not stare into your side-view mirrors as cars pass from behind.
- Do not use any type of medication that may change your night vision or cause drowsiness.

Humans are not designed to be creatures of the night!! Remember to respect the road and the darkness.

Source: Adapted from Texas Department of Insurance, Division of Workers' Compensation, "Night Blindness."