

TIPS FOR SAFER RUNNING ALONG THE ROADSIDE



It is not uncommon to see people of all ages along the side of the road out for a run. There are almost 500,000 cross country athletes and more than one million track and field athletes at the high school level. These numbers do not include the thousands of athletes who run during training for other sports and Special Olympics track and field athletes.

Surveillance by the National Center for Catastrophic Sport Injury Research (NCCSIR) reported seven running-related motor vehicle crashes between 2011 and 2020, resulting in eight deaths, two disabling injuries among middle school and high school cross country and track and field athletes.

In addition, a 45 percent increase in pedestrian deaths was observed between 2009 and 2017 in the United States. In an effort to promote roadside safety for high school runners, the NCCSIR compiled the following pedestrian and runner safety recommendations from national agencies and organizations that are supported by previous research.

Runner Roadside Safety Recommendations:

- Use sidewalks when available or run facing traffic.
- Stay alert and avoid wearing headphones and using electronic devices, including cell phones.
- Cross roads at crosswalks and intersections, when available. If not, cross at a well-lit location.
- Avoid running when it is dark. If it is dark, wear bright, reflective materials and/or use a flashlight or head lamp.
- Follow the rules of the road.
- Avoid running along eastbound roads at sunrise or along westbound roads at sunset.

Additional Recommendations based on seven running-related motor vehicle crash incidents reported by NCCSIR:

- Provide a safety orientation for first-year runners
- Run in pairs
- Never run against traffic lights
- Avoid running in higher traffic speed areas
- Run during lower traffic times if running along a road
- Avoid loitering along the road before and after runs

Use sidewalks when available or run facing traffic. According to the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS), at least 91 percent of pedestrian fatalities in 2017 occurred in areas other than sidewalks. Additionally, a study comparing the walking patterns of fatally injured and non-fatally injured pedestrians struck by motor vehicles found a 77 percent lower risk of motor vehicle collision among pedestrians who walked facing traffic.



Stay alert and avoid wearing headphones and using electronic devices, including cell phones. A virtual pedestrian environment study found that participants distracted by texting on cell phones and participants distracted by listening to music through headphones were more likely to be hit by vehicles while attempting to cross streets in the virtual environment than participants that crossed undistracted. Additionally, participants distracted by electronic devices and music were more likely to look away from the street than undistracted participants. This study suggests that the cognitive demands of texting and reduced ability to pick up auditory cues from vehicles while wearing headphones may contribute to these results.



Another study, comparing auditory perception in cyclists with two earbuds, one earbud and no headphones, found that an auditory stop signal that was heard in subjects with no headphones and one earbud, was not heard by many of the cyclists with two earbuds. Despite a small sample size of cyclists with one earbud, this may suggest an alternative solution to listen to music while running without risking safety.

Cross roads at crosswalks and intersections, when available. If not, cross at a well-lit location. According to the National Highway Traffic Safety Administration's FARS, at least 73 percent of all pedestrian fatalities in 2017 occurred in locations other than intersections. One study, assessing pedestrian-injury severity in motor vehicle crashes, found a decreased risk of fatal injury at traffic signals. This, they suggest, may be due to vehicles moving at slower speeds at intersections when compared to speeds at midblock roads and better "right of way" knowledge between motorists and pedestrians at traffic signals.

Avoid running when it is dark. If it is dark, wear bright, reflective materials and/or use a flashlight or head lamp. The National Highway Traffic Safety Administration identified 75 percent of 2017 pedestrian fatalities occurred in dark lighting conditions. Studies have found that, in comparison to daylight, dark lighting conditions increased the risk of motor vehicle crashes involving pedestrians. This risk is heightened during inclement weather. While any bright, reflective clothing may increase pedestrian visibility at night, one study identified that reflective material attached to the limbs of pedestrians, including wrists, ankles, and major joints, increased driver's recognition distances of the pedestrians by 60-80 percent compared to reflective material surrounding the torso. Although the definition of darkness differs between studies, these studies tend to identify darkness as non-daylight hours, including dusk and dawn.

Follow the rules of the road. A study of illegal pedestrian road crossings set in Australia observed walking patterns against signalized intersections. Illegal pedestrian road crossings were defined as entering the intersection against the pedestrian traffic signal (both blinking and steady) and crossing the road away from, but within 20 meters of, the intersection. It was determined that pedestrians who crossed illegally at or near an intersection were at a risk of motor vehicle collision around eight times greater than pedestrians who crossed legally.

Avoid running along eastbound roads at sunrise or along westbound roads at sunset. An investigation of crashes in relationship to high sun glare times found that, when compared to expected crash values, crashes were more prevalent during sunrise on eastbound roads and during sunset on westbound roads with sun glare. Additionally, higher traffic volumes during these times increased the crash risk further. These findings were more substantial in the early spring, fall, and winter seasons.

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