



If you drive long enough, you'll come across an accident. Can you react quickly enough to save lives?



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Save yourself and others from deadly traffic accidents!

BY WILL DABBS, MD

DANGER AHEAD

Americans are one of the most mobile populations on the planet. As a result, roughly one in 35 Americans are involved in a traffic accident each year. Given the amount of time we spend in transit, chances are we will eventually face a crisis on the road.

We lost roughly 58,000 troops in 10 years of combat in Vietnam. By contrast, we lose about 39,000 citizens every year in the roughly 10 million motor-vehicle accidents that occur on American roadways. The improved safety features of modern automobiles eclipses that of their classic precursors, so more people survive accidents than ever before. However, the advent of cell phones and similar portable

devices has pushed the epidemic of impaired drivers up astronomically.

On average, one American is killed every 13 minutes in a traffic accident. Roughly one-third of all fatal traffic accidents involve a drunk driver and one-tenth of all American teens report that they drove at least once in the previous year while intoxicated. Additionally, 16 percent of fatal traffic accidents involve a driver distracted by an electronic device. Americans send about 170 billion text messages per month and, on average, nine of our citizens lose their lives daily in traffic accidents involving a distracted driver. Two-thirds of Americans report that they talk on their cell phones while driving at least monthly, while roughly one-third report texting while driv-

ing as well. Nearly half of American teen-aged drivers report that they texted while driving in the previous month. What all this means is that the other drivers with whom we share our roads are often dangerously impaired, distracted or both.

Two-Wheeled Threats

Cycling is an ever-popular source of recreation, fitness and low-cost transportation, but around 2 percent of vehicular deaths in America involve bicyclists. The use of a bicycle helmet reduces the risk of head injury in a bicycle crash by 85 percent. Around 1,000 kids per day end up in American ERs due to bike accidents, and on average one child per day dies from this cause. While helmet laws concerning

the use of bicycle helmets among children are fairly common, 84 percent of cyclists killed in traffic accidents are older than 20. Statistically speaking, the cyclist most likely to die in a traffic accident is a sober, helmetless male over 16 killed on a major road between intersections in an urban area when hit by a car on a summer evening.

Scooter riders, skateboarders and roller skaters can pose additional risks, especially when most users of these modes of transportation are children or teenagers. As a driver, these operators are small and can easily get in your blind spot. Always be aware that these folks might join you on the road, especially on small side streets, around schools or parks and during nice weather.

Motorcycle injuries follow a comparably predictable trajectory. While I do not personally condone mandatory helmet laws, anyone who rides a motorcycle or bicycle without a helmet is being dangerously irresponsible. A motorcyclist who suffers a motorcycle accident without a helmet while wearing shorts and a T-shirt incurs arguably the most viscerally repugnant injuries I have encountered in my extensive medical experience. If you choose to ride, be sensible. Wear a helmet and appropriate riding gear to mitigate the damage in a crash.

Critical Care

Chances are, at some point in your driving career, you will be first on the scene of a serious accident. While the ubiquitous nature of cell phones means that help will be forthcoming in most cases, it still behooves the responsible citizen to be prepared to operate without support for a time. Formal survival kits like those from Echo-Sigma or the Vehicle Trauma Kit from Solutions Group International are great. For those times when you are genuinely on your own, however, you have to make do with what you have.

If you feel qualified, take charge of the situation. If you do not feel qualified but no one else steps up, then take charge anyway. People in a crisis typically desire and require direction. The

military axiom is "Lead or be led." In many cases, simply keeping your head and providing a single point from which victims can take guidance and solace can keep a situation from deteriorating into panic or chaos.

In the absence of the threat of fire, try not to move an accident victim if there is the possibility of a spinal injury. If fire is imminent or if there would be greater danger in remaining in place, then make an insightful assessment and move as necessary. Do not attempt to straighten angulated

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limbs unless absolutely necessary. Jagged, fractured bones can cause further damage if manipulated outside of a controlled medical environment.

CPR and artificial respiration can be life-saving maneuvers if performed appropriately, and every able-bodied citizen should be CPR qualified. Keep victims warm and dry, and elevate their legs if practical to combat shock while awaiting an ambulance. Make a thorough assessment of an accident scene. Frequently, victims may be ejected from a vehicle or crammed into unexpected spaces after a crash.

Lifesaving Gear

Lose a liter of blood in 20 minutes and you get dizzy. Make that 2 liters in the same period and it is life threatening. If there is copious bleeding, do not hesitate to act. In the case of significant bleeding, a handy T-shirt or similar piece of clothing can make an improvised pressure bandage. Cover the wound, apply pressure and many vigorously bleeding wounds will abate.

A tourniquet can be improvised from a shoelace, a belt or a necktie, but it is a tool of desperation. If the hemorrhage cannot be controlled through more conservative means, locate the tourniquet between the wound and the heart and wrap your tourniquet material in a loose loop around

ROADSIDE RESCUE KIT



The Vehicle Trauma Kit from SGI is a compact first-aid kit optimized for roadside emergencies.

If you drive long enough, you will eventually be the first person to arrive at the scene of an accident. Add to this that most of us will have to load up and travel in the event of a disaster, natural or otherwise, and the odds of facing a survival situation while on the road becomes not so much if but when.

The Vehicle Trauma Kit (VTK) from Solutions Group International brings you everything you might need to weather adversity while in a car, all in one tidy pouch. From minor injuries to life-threatening trauma, this kit has the gear you need in a compact package that won't take up half the trunk.

The packaging is simply inspired. The VTK straps to the back of the headrest in your vehicle and sports a bright red handle to facilitate easy access in a crisis. Whether the vehicle is upside down or you are simply in a hurry, the VTK is always easy to find. Hook-and-loop fasteners hold the kit in place such that you can just grab and go.

RAPID RESPONSE: I'm a physician and I see these kits all the time. The VTK is sufficiently well executed to impress me. Trauma shears remove bloody clothing, chest

seals stabilize penetrating chest trauma and the Celox clotting agent helps control bleeding. There is a 28 French nasopharyngeal tube to assist in establishing an airway in the presence of facial trauma. If the situation turns truly serious, the VTK includes the extraordinary RATS tourniquet system. The RATS was designed by a career spec-ops operator and is the most effective and easy-to-use tourniquet system I have encountered in my extensive travels. I keep one in my medical clinic.

The VTK is not a bag full of cheap plastic tweezers and generic bandages. The VTK has the stuff you need without the fluff you don't, all arranged in a logical, easily-accessed fashion. Gloves, shears and tourniquet are at the front. Open the kit and everything lays out where you can get to it in a rush.

Even in these days of cell phones, it can take a little while for rescue personnel to arrive. Should you be the first on the scene of an accident, disaster or crime, a little gear and a survivor's mindset can transform you from helpless bystander to hero in moments. As with most things, the crucial component is being prepared. Solutions Group International makes it easy to get there. (877-844-8744; solutionsgroupinternational.com)

Check leading between columns in sidebar.

AVOID AIRBAG DANGERS



Airbags save countless lives but can be dangerous to first responders.



Photos Courtesy: Holmatro

An airbag is little more than a small explosive charge that vents into a robust sack during a car crash. This remarkable device saves literally thousands of lives around the world every year. One of the more serious concerns governing the safety of first responders and their patients at the scene of an accident is guarding against the unwanted detonation of a damaged car's airbag.

Actions at the scene of an accident can have long-lasting ramifications. In the absence of fire, the extraction of injured occupants from a damaged vehicle needs to be done carefully and deliberately. The possibility of spinal cord injuries, unchecked bleeding or the unwanted

manipulation of fractured bones demand that great care be exercised during this critical period after a motor-vehicle crash. One aspect of this process that is absolutely intolerable is the undesired detonation of an airbag.

CRASH PROTECTION:

The Holmatro Company recently introduced its Secunet III airbag protection cover to address just this problem. The Secunet III is designed to be a one-size-fits-all solution to the problem of unwanted airbag detonation. This clever device incorporates a tough, aramid-reinforced fabric cover along with a series of mounting straps. The cover fits all steering wheels from 35 to 51 centimeters and works on cars, trucks, buses and vans.

Installation is simple even under stress, and the design covers part of the steering column as well as guards against the dangerous escape of gas or small parts that could become missiles during an accidental inflation.

Holmatro produces an extensive line of hydraulic extraction equipment to be used in rescue operations. Its Secunet III airbag protection cover offers enhanced safety and peace of mind to those who are called upon to perform lifesaving work extricating victims after a motor-vehicle crash. Lightweight, effective and easy to use, the Secunet III is a vital part of any proper lifesaving loadout. (holmatro.com; 410-768-9662)

the limb. Then take a handy straight object of some sort and twist the end of the loop to tighten it around the limb. Tighten the loop until you can get two fingers underneath it with difficulty. Keep in mind that the proper use of tourniquet can result in the loss of an arm or leg so make this decision soberly.

Back when I lived in the Alaskan interior, our vehicles did not move without a proper survival kit on board. While this is *de rigeur* in Alaska, it is a sound concept in other parts of the country as well. During a recent winter storm in Atlanta, Georgia, motorists on an interstate highway found themselves cut off, cold and stranded for as much as a day due to unexpected icy conditions.

A proper sleeping bag is an indispensable part of a survival loadout. These devices compress to occupy very little space and are reasonably priced. In addition to their conventional uses, a sleeping bag can be used to keep an accident victim warm and mitigate the effects of shock.

Your vehicular survival kit should include basic medical supplies, a decent knife, a source of light and a pry bar of some sort if the vehicle does not include a traditional tire iron. You need to be able to break window glass and cut seatbelt material both day and night. The StatGear T3 Tactical Auto Rescue Tool incorporates most of these features into a single, inexpensive device.

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The T3 includes a spring-loaded, steel-tipped window punch, a 440C stainless steel hook blade for safely cutting seatbelt webbing and an LED light with replaceable batteries. There is a conventional 0.5-inch, serrated, stainless steel cutting blade along with a stainless belt clip and a heavy-duty nylon belt sheath. The entire tool is only 5 inches long and weighs a paltry 6.4 ounces. While you can make do with lots of things, a little store-bought dedicated gear is almost always better. The StatGear T3 is small enough to hide in a glove box yet can make an impromptu auto rescue so much easier.

Given the widespread prevalence of bloodborne pathogens, a few pairs of nitrile gloves and a barrier mask for artificial respiration are handy. Imagine the sorts of challenges you might face and then equip yourself accordingly. My kit includes a RATS tourniquet system, a couple of Israeli battle dressings and some trauma shears, along with a handful of light sticks and a survival knife. While such stuff can save lives in a dire crisis, it can also help you change a

spare tire in the dark when things are simply frustrating rather than frightening.

As I told each of my teenaged children as they began driving, it is not their skills that I worry about; it is the people with whom they share the road. Drive defensively and be prepared. The difference between a hysterical bystander and a hero is seldom more than a little training combined with a survivor's mentality. The most capable survival tool ever devised rests solidly upon your shoulders. The critical piece is simply being ready to use your instincts efficiently when the time comes.

FOR MORE INFORMATION

Echo-Sigma
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Solutions Group International
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877-844-8744

StatGear Tools
statgeartools.com; 718-551-1815

RATS Tourniquet
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