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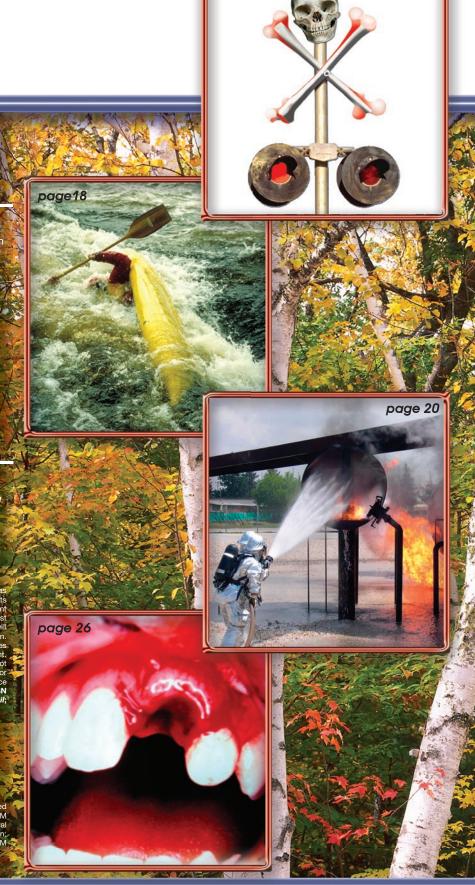
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Front cover: USAF photo by SSgt Russell Wicke Back cover: USAF photo by MSgt Jim Varhegyi Digital Illustration by Felicia Moreland





Heed these words or be smitten! Smote!! Whatever!!!

ZACHARY WAKEFIELD 332 ECS/SCMM BALAD AB IRAQ

ollowing this sentence are some other sentences, depicting, among other things, some dumb things. After those sentences, or included with seemingly unnecessary commas, hyphens and semicolons, are some reasons why you should not do them.

As a particularly accident-prone individual, I've personally experienced some of the more unpleasant phenomena surrounding my own absent-minded stumbling into the realms of stupidity, and have been adversely affected by them. It is in this capacity that I find myself bestowing upon you, the masses, a tiny shred of wisdom that I've learned in this world. I hope you find it useful.

It's the really obvious things that catch you off guard, like "Don't wrestle with Special Forces troops," "Check for water before jumping into the pool," and "Don't buy a catfish pulled out of the trunk of a car by a guy in overalls." It's just as you take your last bite of

that catfish that your intestines start complaining and you realize what a horrible error you've made. That's when you start praying to the appropriate deities for triple-ply paper in your "office." This is an easy situation to avoid. Buying food from places that get it fresh and keep it cold will save you a lot of belly-grumbles, not to mention sickness, untimely death or, even worse, nasty smells in your refrigerator when you reach in for a beer.

As a side note, I think you'll find that ordering a pizza and hanging out in your boxers all day is a great way to relieve stress. Grant the pizza guy a favor, though, and put some pants on before you answer the door. Sometimes it's easy to forget that you've been inside playing video games for the last seven months, and your legs are bright enough to burn toast. You may be a level 84 super-druid, but he's still gotta drive home, and he'll need his vision for that.

A final tidbit: Walking. This can be extremely dangerous, so I recommend you exercise caution while participating in this exotic sport. Things like getting run over by dump trucks, eaten by flocks of angry hummingbirds, and

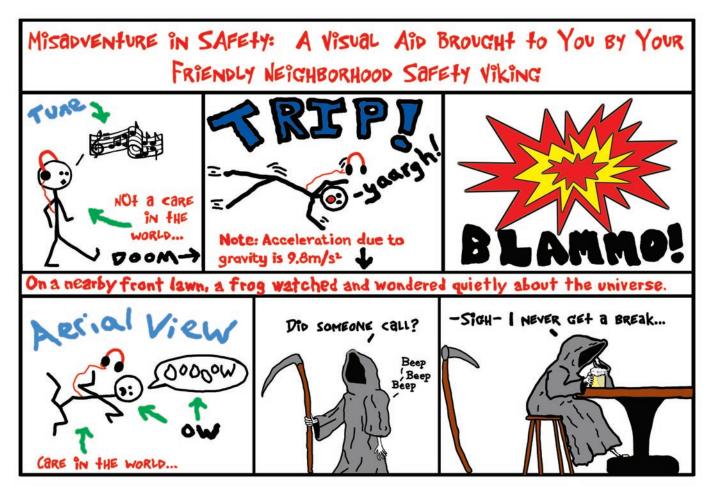


Illustration by Zachary Wakefield

tripping over unexploded water balloons happen all the time to people who walk without being careful. It's even worse if your ears are clamped to a set of headphones blasting the latest South Dakota-Reggae techno remix into your ears. Or if your head is already bruised and befuddled from putting your ear to the tracks and listening for the train (Another dumb thing ... a little bonus dumb thing for those of you keeping score).

The point is, distractions are distracting. The feet have no eyes, so they can't see that you're about to plummet to your stinky demise through an open manhole cover, or step inadvertently onto the toes of someone larger than you and armed with an axe and six pints of brew. Keep that in mind and you might have the opportunity to celebrate another birthday. I hope you get lots of presents.

Final note:
Don't do
dumb
things!

Bjorn, your Friendly Neighborhood Safety Viking Warrior of the Sands Expert Pea-Shooter Marksman Wielder of Thok, the Mighty Axe of Safety



CHAPLAIN (LT COL) MICHAEL M. JONES 507 ARW/HC Tinker AFB OK

ost of you don't know it, but I love to ride my motorcycle. It is a sleek, black Honda Shadow 1100. I've been riding motorcycles on and off since I was 17, and never had an accident. When I bought this bike four years ago, I took the three-day Motorcycle Safety Foundation's Beginning Rider Course. I was a little embarrassed to take the course, but realized that I hadn't ridden for some time and needed to brush up on my skills. What I learned was that I didn't know as much about safely operating a motorcycle as I thought I did.

On Saturday, March 19th, the course (along with the Good Lord), saved my life. That was the night a car pulled out in front of me and brought me and my bike to a sudden and painful stop. My motorcycle hit the car broadside, doing about 25-30 mph. I took the brunt of the impact on my left side and was thrown into the car door/window and then bounced back onto the road. My pas-

senger (my 22-year-old niece) flew over me, hitting my helmet, handlebars, and top of the car before landing on the other side of the vehicle in the road. We were both taken by ambulance to the local ER. Fortunately, neither of us suffered any life-threatening injuries. However, my niece suffered road rash on her leg, and foot injuries, while I cracked at least two ribs, bruised my left hip, and left hand, and had a minor cut on my forehead. Needless to say, it was very painful and continues to be to this day. In fact, I missed the April **Unit Training Assembly (UTA) because** I hadn't recovered in time to make the trip from Little Rock.

So, how did the MSF course save my life?

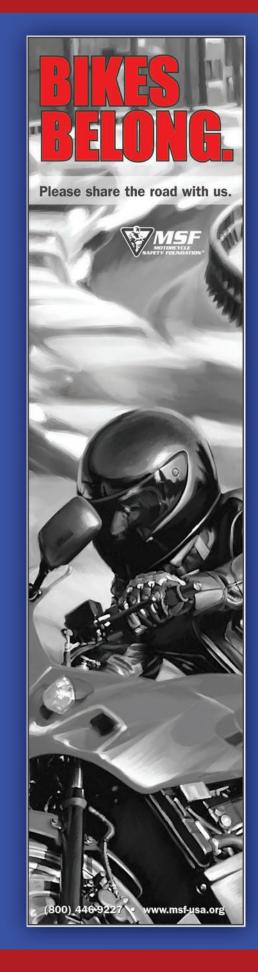
• First, it taught me to be more aware of my surroundings and to drive accordingly (anybody knows what S.I.P.D.E. stands for? Scan Identify Predict Decide Execute). In this case, even though I didn't see the car until it was too late, I was driving under the speed limit and had already started to slow down because the traffic was heavy and it had just turned dark.

• Second, I was also wearing a goodquality helmet, an excellent riding jacket with padding, and leather gloves. And I made sure my passenger was wearing a helmet, too. We were taught to wear the proper clothing and, of course, the Air Force requires it for any military member who rides a motorcycle. But every time I got onto my bike, I had to make a conscious choice to wear that helmet, jacket, and gloves. Those things really protected me during and after the impact.

And what about the Lord's role in all of this? Even with all the right equipment, the impact was very severe, and without His protection, my niece and I would still be in the hospital ... or worse. I am very mindful and thankful

for His protection.

Oh, by the way, the motorcycle didn't survive. Neither did the jacket (it had to be cut off me), nor the helmet (it was retired from service). But I'm not the least bit upset about those things. I can always choose to buy another bike, helmet or jacket, but my niece's and my lives are priceless. So is yours, so be careful!



Close Encounters of the Eight-Legged Kind

LT COL HARRY DRUTOK HQ AFSC/SEW

here are three things in life that
I really don't like. The first thing
is the HQ AFSC Chief of Ground
Safety wearing spandex at the
gym. The next thing is going to
work on Monday morning. The last thing
I do not like is a spider.

Wednesday morning, the last day of August, started off like any other day. At about 5:45 a.m., I put on my slippers, took the dogs outside and went to feed the horses. While standing in the barn, I noticed what felt like a match being held to my toe. The pain intensified enough to make me rapidly take off my slipper and look inside. It was rather dark in the barn and I didn't see anything. I thought that maybe I just had been stuck by a cactus quill. I put my slipper back on and felt another burning sensation on another toe.

This time I really looked inside the slipper and found, much to my surprise, a really big spider curled up inside my slipper. I thought, "Maybe this guy is poisonous and I should keep him to have this checked out." So, I walked rapidly from the barn back to my house, with this gigantic spider starting to crawl out of my slipper, back onto my hand. I ran in the house and captured the beast in a zip lock bag. Those bags hold more than sandwiches!

With the spider captured, I went inside and took a look at my middle toe. It was now red, throbbing and swollen. My big toe, the second bite, wasn't too bad. My wife and I took a close look at the spider and guessed that it was a Wolf Spider. Wolf Spiders are members of the family Lycosidae, in the spider order Araneae, in the class Arachnida. I didn't really know that, but just looked it up. Anyway, not being one to run off to the doctor unless blood is pumping out of my eyeball, I thought I'd take the spider over to Entomology for a positive identification. The nice folks over there confirmed that my assailant was indeed a Wolf Spider, and that they are generally harmless, but pack a good bite. My toe was also feeling better and the swelling had subsided.

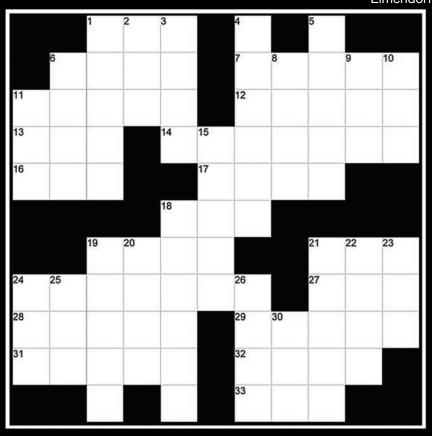
Now, I'm left with the dilemma as to what to do with my new pet.

I brought him into work and, of course, tried to scare some of the women, but it didn't work. I also figured it wasn't his fault, and if some big creature stuck his toe in my face I'd probably bite him, too, so, I let him go in front of the Safety Center. So, beware—there is a big, huge attack spider, about the size of a lobster—well, maybe not that big—on the loose in front of the HQ AFSC.

With the weather turning colder at night, creepy crawlies will make their way in the house and go for a warm spot, like shoes, slippers, towels, etc. Be sure to check your shoes and clothes, and shake them out before you put them on, or you, too, might have a close encounter.

In the Fall

CAPT TONY WICKMAN ALCOM/J02PA Elmendorf AFB AK



ACROSS

- 1. Safety outcome from not using caution
- 6. Sandwich shop
- 7. Custom
- 11. Spies, or lawn wreckers
- 12. Sentence parts
- 13. Spoil
- 14. Fall, or spring, event
- 16. Places for injured people
- 17. Glow
- 18. Andy Roddick's org.
- 19. Like a ___ to a flame...
- 21. Mil. uniform
- 24. Essential person when backing up a vehicle 19. Patterned fabric
- 27. Tire track
- 28. Caribbean locale
- 29. Delete
- 31. Mistake
- 32. Dispatched
- 33. Peyton Manning scores

DOWN

- 1. Safety seat straps
- 2. Pub order; inhibits driving abilities
- 3. Compact type
- 4. Car necessity for fall/winter months
- 5. Steam room
- 6. Entrance
- 8. Fly
- 9. African antelope
- 10. 6th sense?
- 11. Field food, in short
- 15. Wood turning tool
- 18. What you wear
- 20. The Simpson's bus driver
- 21. Dietary fibers
- 22. Airborne health hazard
- 23. SW Native American
- 24. Her
- 25. Even golf score
- 26. Essential need for activity
- 30. Traffic light color to stop a vehicle

rolled to a stop just on the other side of the train tracks. Suddenly the van shook, buffeted by the compression wave of the train that missed my bumper by less than a foot. As my heart raced and hands trembled, I realized I had just missed death by inches. I drove slowly home, trying to make

sense of what had just happened.

15 to see my family. In other words, I was not late and had no perceived need to be in a hurry. The normal route I take off base is through the west gate, a four-lane with three turn lanes on and off the road. These lanes cross a railroad track that runs along the base's west perimeter. The tracks are guarded by flashing lights to the

It was just like any other day. I was leaving work about 5:

right and above each crossing. There is a white line painted about 10 feet in front of the track. Beyond the crossing is a large intersection where six lanes of traffic in each direction

converge. This intersection is controlled by a pressure-sensitive traffic light system, between the white line and the tracks. The traffic lights will turn yellow, then red, for any railroad crossing traffic as a train approaches the intersection. One important note: There is a second white line on the other side of the tracks at the boundary of the traffic intersection about 10 feet from the tracks.

This is the intersection I was approaching that afternoon. The setting sun lines up perfectly with the westbound traffic. The speed limit on base is 25 mph, and is strictly enforced, so there is no accelerating to "make the light," at least not to more than 30 mph.

There is about a 500-yard straightaway before the intersection, so you have plenty of time to see what the traffic light currently is

displaying.

That day the light had just turned green, so I knew it should be green as I went through the intersection. The sun was glaring as I concentrated on the light. Just as I approached the intersection, the light turned yellow, and I realized as the car in front made it through, that I would not. Conceding this fact, I slowed down and stopped just on the other side of the tracks, to wait out the red light. This is where I was when the southbound train blew by me. As I sat there in a state of shock, I wondered why I did not see that coming. Was there a horn? I'm sure there was, but I hadn't heard it, because of the A/C and radio. What about the lights? Why hadn't I noticed them? I've thought about that every time I've gone through the intersection since. My visor was down to prevent some of the glare from the afternoon sun. But I think the real reason was my focus on the traffic lights, instead of on the warning lights.

We often forget about the other party in a train accident—the conductor. I have since talked with a friend who works for a railroad. I asked him if he had had any near misses or collisions. He said that, unfortunately, he'd had several. The one thing that each

There

CAPT IVAN WARE 11 BS/DOC Barksdale AFB LA incident had in common was his knowing that there was nothing he could do about the accident, except blow his horn. An average train weighs 2500 tons! A 150-car train traveling 50 miles per hour takes 8000 feet to stop. That's more than a mile and a half. Even the slower, town-transit speeds can cause these trains to have a stopping distance of up to a mile.

Many people take these crossings for granted. We cross tracks every day to and from work, and never have a problem. Unfortunately, this habit desensitizes many to these hazards. According to a recent newspaper article, trains and automobiles collide at the rate of nine per day in the United States. Each of these is 30 times more likely to result in a fatality than a collision with another motor vehicle.

The preferred railroad crossing safety feature is gates to block traffic. Although crossings with gates are 90 percent effective at preventing collisions, many states have relatively few crossings protected by gates. Ohio, for example, has more than 6000 public crossings. Only 34 percent are gate-protected, and many have no markings at all. The National Traffic Safety Board has recommended installing stop signs at all crossings. This is a

safety systems, such as installing gates at \$150,000 each. When there are no gates present, the accident rate is seven times that for crossings with gates that block vehicles.

Another, often-overlooked alternative, is to remove or block unprotected crossings. While this may

increase commute time, I can think of at least one crossing near my house that could easily be eliminated.

At that crossing where I almost became a statistic, there has been at least one crash since. Luckily, the driver survived.

Our commander has made improving the crossing a priority. He is not alone in his initiative. On July 22, 2004, three members of the U.S. Congress requested a new investigation to focus on laws and regulations governing grade-crossing safety inspections, accident reporting requirements, and accident investigation procedures. The inspector general of the Transportation Department has said the purpose is also to identify enhancements that could improve gradecrossing safety and reduce accidents.

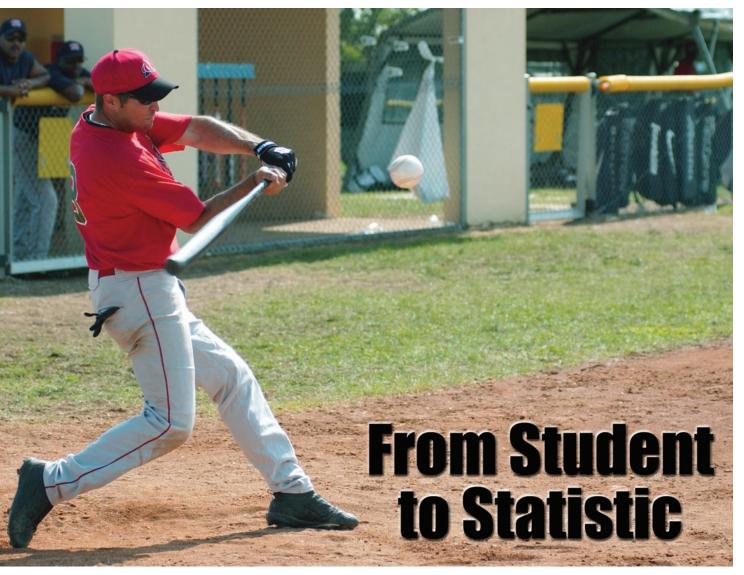
What can you do?

 Pay attention to the tracks. Look for warning lights and bells.

Never cross the track to "beat the train." The large size of the locomotive creates a visual illusion as to how fast it is traveling. In most states, it is against the law to cross a track with the warning lights flashing or gates

down. From my experience, if





LT COL BRUCE BURNHAM HQ AFSC/SEPRS

an injury epidemiologist at the Safety Center, I spend most of my time looking for injury trends in the Air Force. Because I've always enjoyed athletics, and since sports and recreation cause a large portion of lost-workday injuries in the military, one of my special interests is injuries caused by softball. That's why my colleagues have found such amusement at my recent injury—if anyone should be able to avoid injury, it should be me.

Although I'm very competitive and played college baseball, I'm also injury-averse—I stay in excellent shape year-

round, warm-up by jogging in the outfield before I ever pick up a ball, and I wear a custom-fitted mouthguard. Most important, I never slide.

You may think that's taking it a bit too far, but I've observed more innings killed on the bases than hitting. Because a slow-pitch ball is so easy to hit, you're more likely to be thrown out on a close play than you are being stranded by the next hitter. Since I'm never thrown out, I'm more likely to score than those who risk a close play. Plus, sliding is the No. 1 cause of softball injuries (collisions are No. 3), so I'll play more games by avoiding injury.

There I was, pitching in the opening game of the season, because our regular pitcher had to coach his son's game at the same time. We had won the league last year, so we were moved up to a higher level of competition this year. I was warned that the balls jump off the bat quicker in this league, and I thought I was ready—but wasn't. The second hitter smashed a line drive that I thought would have gone 400 feet, but never got far off the ground. I never had a chance to move my glove. The ball hit the back of my glove, specifically my pinkie, and glanced away. I felt a lot of pain, but the excitement of playing a close game delayed any close inspection of the injury, particularly since we won 18-17.

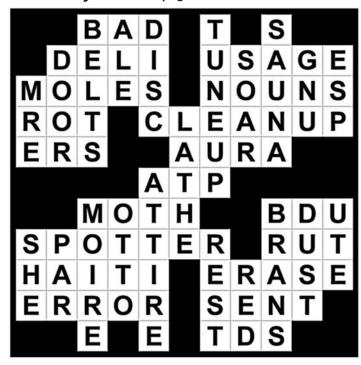
But while walking to my car after the game, as I held up my hand, I noticed the last joint of my pinkie snapped down uncontrollably, and knew that I had at least tendon damage. The X-ray the next day showed a small bone fragment that would mean I would be on the DL for the first half of the season. The orthopedist told me that my finger would never be the same, and that any re-injury would mean much further damage.

Since I was restricted from doing pushups, I'm now part of the Air Force Safety Automated System (AFSAS) database. I've added one mishap to the secondlargest source of softball injuries—getting hit by a ball.

What could reduce hit-by-ball injuries? Practicing catching line drives would probably cause more injuries. Moving the pitching rubber back would make it tougher to find the plate, and require changes to the field. One other possibility, going to a .44 coefficient of restitution (COR) ball, may soon take place on USAF fields. I welcome the change, since velocity makes a huge change in the energy that the ball delivers. So, slowing the ball down will not only give more reaction time, but reduce impact energy, and therefore, injury severity.

Finding the right level of risk is a balancing act, and difficult decisions must be made to find that level. But, I know the data, the pain of injury, and the frustration of not playing makes me want to choose in favor of keeping players on the field, rather than in the clinic.

Fall Safety answers to page 9



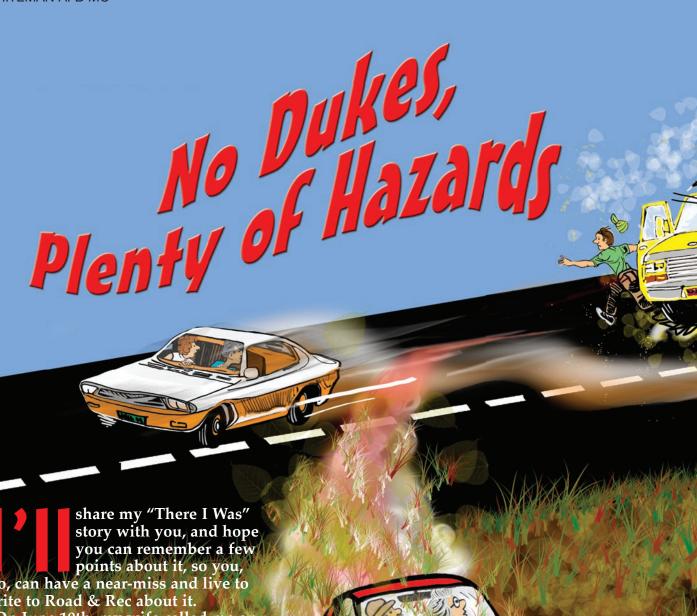
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points about it, so you, too, can have a near-miss and live to write to Road & Rec about it.

On June 10th, my wife called me on my cell phone around lunch time.

"Where are you?" she asked.

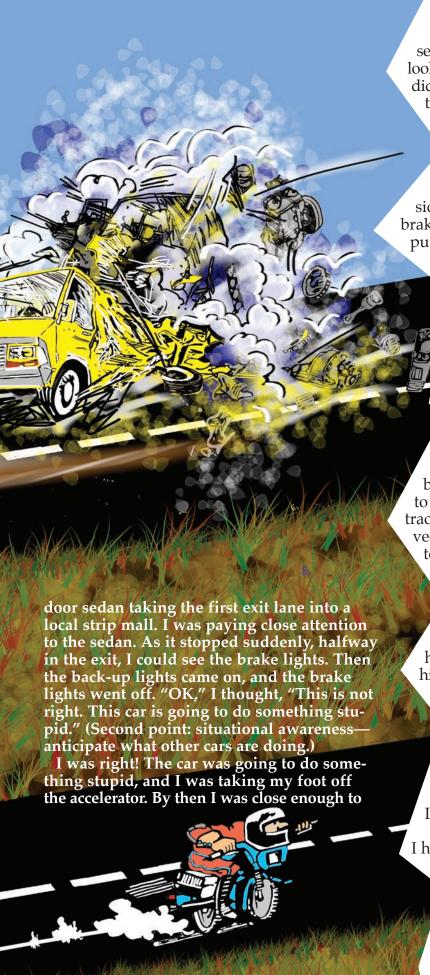
"I'm sitting on the side of the road, waiting for my leg to stop shaking," I told her. She could tell by my voice that something had just happened.

I was on my lunch break, and thought I'd run a quick errand for her and purchase an item we wanted. I was driving east on Highway 50, just exiting Highway 23 (the main highway intersection in Knob Noster, Mo., near Whiteman AFB), and as I entered the highway from the exit ramp, I was doing the normal 65 mph speed limit. (First point:

obey traffic laws—wear your seatbelt and obey the posted speed limit.)

In the lane to my left, not too far behind me, was a large four-wheel drive pickup, and on his tail was a tractor trailer. The 4WD was traveling at a faster speed, and I knew he'd be passing me in a few seconds.

Up ahead about 300 feet was a maroon four-



see that it was an elderly couple. The driver looked left to see the median turnaround, but did not look farther left (behind) to see me, the 4WD and the tractor trailer. Now, the 4WD couldn't see the sedan, because I was blocking his field of vision. The sedan driver turned left and froze in the middle of the highway, sitting sideways.

I said aloud a choice expletive expression beginning with "Oh," and hit the brakes so hard that I felt like I was going to put my foot through the floor/firewall. At the same instant, I pulled over to the

extreme right, barely missing the tail end of the sedan and coming to a stop on the shoulder, while the 4WD whipped in front of the sedan.

By skill and a lot of luck, the 4WD missed the highway signs in the median (by inches, probably) and missed the sedan by a foot or two. The 4WD went in the ditch and bounced back up into the same lane where he had been a microsecond before, staying upright in the process. I thought the way the 4WD bounced out of the ditch that he was going to land on either side, but not upright. The tractor trailer came into my lane after I just veered off, as I didn't see him pass. I was too busy looking for an opening to get out and away.

After this flash of excitement, the elderly man in the sedan made it across the median and turned left, heading back the way he came, with no surprised look on his face. "Oblivious" is the choice word for his actions. I don't think he knew or understood what had just happened.

I had been pulled over for about 10 seconds when my cell phone started ringing. I answered the phone and told my wife this story. Funny, but my leg didn't start shaking until after I stopped. I think it was the adrenaline, as I'd had no time to be scared.

My mind began wondering, "what if" I had not made the first move? I was lucky to have made the one quick decision.

(Third point: keep yourself mentally awake—sometimes a quick reflex is all you have.)

Save yourself and others grief, pain and financial loss by playing it safe. ■





Without Thinking, We're Lucky To Be Alive

SSGT DON BRANUM 50 SW/PA Schriever AFB CO

ur office had a safety briefing with a different flavor before the Memorial Day weekend. Every other safety or operational risk management (ORM) briefing I have sat through since I enlisted six years ago was vanilla: "Don't drink and drive. Only drive eight hours per day. Make sure you have whatever safety equipment you need for outdoor activities. See you next week."

This briefing was a sundae instead. Each of us had to relate a story about something we had done that might not have happened if we had thought about it before doing it—simple risk management.

One of my co-workers related a story of taking an impromptu trip to do some mountain climbing. Since it was on such short notice, he didn't bother taking any gear with him and didn't do research into the area where

he would be climbing. Five hours into the climb, he found himself on an almost nonexistent ledge with a sharp wind pushing up at his feet

"That was not a smart position to be in," he told us. He had given himself no choice. He either would have to press on, or turn around and make a five-hour climb back to his starting point.

My own story was about fatigued driving. I was a member of the honor guard at my last base and was responsible for driving the other 11 people in our funeral detail to and from the ceremony. We had finished the detail and were on our way back. Most of the people in the back of the van were asleep, exhausted from wearing service dress uniforms in the scorching heat and oppressive humidity.

I was just as exhausted, but too proud to admit it or ask

someone else to drive. The van began to drift toward the right side of the road the second or third time my eyes drooped. We all were extremely lucky I woke up when the front right tire scraped along the side of the pavement.

The most sobering story came from the next person in our circle, who told us about a kayaking trip he took on his 21st birthday. Again, the notice was short, and he didn't give himself time to prepare. The river got choppy shortly after he and his friends began their adventure, and his kayak flipped. Rolling over in a kayak is a common occurrence, but he was not adequately trained to recover. After three failed attempts to right himself, he reached for the pull cord to get out of his kayak.

The pull cord was nowhere to be found. In his haste to prepare for the trip, he had tucked the cord inside the rubber skirt of his kayak.

"At the time, I thought, 'that's it, I'm dead,'" he said.

He had been submerged for about 45 seconds. He changed his mind a few seconds later, and tore frantically at the kayak's skirt to free himself. After struggling for several more seconds, he pulled himself out and swam to safety.

We each shared our own harrowing tale. As we listened, we took notes about what we thought contributed to each person's situation. We chuckled as we scribbled down "foolhardiness," "lack of training" or "lack of preparation."

Even as we laughed, though, we learned. Our group was small, but we each had a story that could have ended tragically.

The most important lesson I came away with is this: If you do not determine the consequences of your decision before you make it, you'll be lucky to survive the experience. Risk management has to be more than a dusty copy of an Air Force instruction. It has to be more than an annual training requirement. It must be a constant and conscious method you use to make decisions.

It is better to be smart than lucky. Be prepared: know your limits, know your surroundings and be safe. Your life depends on it.





of control, and those who visit or work in your facility and with your equipment, safe."

Some new NCOs understand this concept; they may have picked it up recently after attending PME. It comes intrinsically to some. Others in the class are a bit surprised at my emphasis, often Airmen First Class and Senior Airmen, who have just taken up leader roles on small teams. In class I provide some tools and contacts to help a supervisor run a safety program, but the one thing I insist they understand afterward is that the time to shrug shoulders and point upstairs is over. Supervisors must accept that they are always, ultimately responsible for what goes on during their watch, and often what goes on when they may not be around.

If you've been in the service for a while, you have probably had some experience with reports of survey, non-judicial punishment, Article 132 hearings, line-of-duty determinations, and the like. But above and beyond these codified measures, which we use to reinforce and ensure responsibility, is a concept I believe defines a supervisor. This is moral responsibility. As a supervisor, you are morally responsible for what goes on within your span of control.

You are morally responsible to alert your superiors if safety concerns, whether hazards or issues of noncompliance, are being tolerated outside your span of control. You are morally responsible to ensure that the Airmen who work for you, who may or may not know any better, learn and apply safety standards. They may make risk decisions in their personal sphere at home, but you are responsible for their risk decisions when they handle Uncle Sam's scarce and costly resources. You hope the example you set will rub off on their personal risk decisions as well, because we, as leaders and supervisors, can't be everywhere all the time.

Pontificating aside, I have six suggestions to help a morally responsible supervisor set the proper tone that will contribute to safety performance. They work in nearly all supervisory situations. Some examples: You may be a Senior Airman leading a small team of Security Forces responders, a young officer or newly hired civilian heading up a flight or branch (you hope teamed with a seasoned Senior NCO), a new First Sergeant working in a squadron whose mission and core tasks

continued on next page

SSgt Paul Bohn changes the oil and performs other critical maintenance on a Humvee. He is a vehicle mechanic with the 447th Expeditionary Logistics Readiness Squadron and is deployed from Kadena Air Base, Japan.



USAF photo by TSgt Brian Davidson



Firefighters put out a mock engine fire. To make training realistic, firefighters battle infernos using a special airplane fire trainer that combines many parts of different planes to simulate the vast array of aircraft in the Air Force inventory.

USAF photo by Shannon Draper

it is misperception that this is the case. If it is not, you can discuss and perhaps negotiate options with safety and health staff in a discreet setting. Many safety solutions are designed to improve safety, efficiency, and effectiveness. Maybe not over the short term, but good safety solutions are

designed to improve long-term effectiveness by reducing/eliminating mishaps.

Third, you can delegate some tasks and responsibility to others. Neighborhoods usually look better if homeowners dominate renters; reasons include pride in ownership and appreciation of value. You can have subordinates take ownership of the safety performance of your shop by parceling out some tasks and

differ from your prior career field, or a new Technical Sergeant who has just transferred from Base Comm to run a desert-bound mobile Comm element. These are just a few examples. All share two traits: combining a new role with a new sort of responsibility.

First, remember that you must set the example. Airmen are impressionable. You can't tell them to do something, yet do the opposite your-

self, whether or not you think anyone is watching you. Don't get tanked at the monthly hail and farewell. Wear your seatbelt, safety goggles, gloves, etc. Don't tolerate or contribute to horseplay. Setting the example is an easy rule, but it is one that often trips up a shop when safety specialists evaluate that shop's safety performance or investigate a mishap.

Second, support USAF, MAJCOM, Base, Squadron, Flight, and appropriate commercial/industrial safety practices and policies. Don't brag about the good ol' days when safety didn't matter. Don't complain to subordinates when compliance seems to get in the way of mission effectiveness. Often



Airman 1st Class Matthew Metzger determines what type of simulated hazardous material has been spilled. He is assigned to the 447th Expeditionary Civil Engineer Squadron and is deployed from Kadena Air Base, Japan.

responsibility. I once met a MSgt who told me he was too busy to update his safety board regularly and manage the overall shop safety program. Maintaining the safety board is a task not limited to senior managers. I bet a new A1C may have thrived on that responsibility! The 2-3 SSgts who handle most OJT may be able to handle most of the daily operational/industrial safety inspections; the TSgt assistant NCOIC may be able to handle the periodic facility inspection schedule. Now the MSgt can manage, just like the "imaginary NCO" we learn about in PME does. The MSgt does delegate and share, but still has overall responsibility. You hope this gets the others more imbedded in the safety performance of the shop.

Fourth, expand your focus. Don't define safety within narrow guidelines. Look at what your troops are really doing at work and on the weekend. Learn from the mishap (car crashes, industrial injuries, etc.) and unfortunate non-mishap events (alcohol-related incidents, assaults, etc.) that are happening or have occurred. You are getting good if you can predict what is coming down the pike. Too many supervisors recycle the same old messages without considering new data. Too many limit safety inspections to the monthly facility checklist. Do you think most mishaps are really caused by facilities? It is more like five percent; the figure is right there in your PFE study guide. Focus your mishap-prevention and ORM efforts more on what your peo-

ple do—not where they work.

Fifth, take it personally if your troops violate safety standards, do little or no ORM when they should, or create unsafe environments. The first time an Airman violates a safety standard may be a training opportunity. If it happens again, it is not really a safety problem, it is a discipline problem. Treat it that way; don't be afraid to be the bad guy or gal. You may need to put ink to paper to get the message across. We expend ink when folks can't run fast enough or get haircuts at regular intervals; we can do so when their safety practices endanger themselves and others. Most will get the picture eventually; some may not ever get it. As supervisors, I suggest you consider steering those unfortunate few toward a more appropriate career choice where self-discipline is not as necessary.

Sixth, recognize and reward safety performance. Safety awards are like commercials—



Airmen explore an iceberg in 30-degree water during a demonstration of Danish Police water survival suits. The team dove into the Arctic Ocean during an "open ship" event aboard the Sisak IV, a cutter from Sisimiut, Greenland. USAF photo

they tell a sometimes wary audience that committing to a safe environment, being innovative, and accomplishing the mission while circumnavigating risk pays off. If you and your shop, flight, squadron, wing, etc., are doing it right, then I suggest you compete for all safety awards you can qualify for. Sometimes we can't seem to see where safety fits in. You don't earn points for it. You only seem to hear about safety when things go wrong. Mission accomplishment alone may mean you've practiced exceptional safety. Was it just luck? Or did your risk management, commitment, and discipline pay off? If so, you can often credit your safety program for significant contributions to the mission.

A colonel once told me that as you go up in rank your responsibility grows, and as it does, you get further and further away from exercising direct control over your subordinates. You must rely upon their discipline, skill, and decision-making. You must rely on them to accept moral responsibility for their sphere of influence. To me, exercising this moral responsibility means you care. You care in a way that extends beyond (but not at the expense of) following instructions and orders. As a supervisor, you must care—it is not optional. You must not only care about your contribution to the mission, not only care about the reputation of your shop, not only care about the opinions of your senior rater. You care about the present and future welfare of those who work for you, even if they do not appreciate it ... yet. You hope your efforts will in turn produce the next generation of leaders willing to accept the heavy burden of responsibility.



he following short articles are derived from actual Air Force Class C mishaps. Our intent is not to make light of anyone's pain, even if it is sometimes self-inflicted; it's the questionable decisions and behavior we're pointing out. This is just a different approach to getting people to read about safety. Check 'em out—you just might get a laugh, and learn something, too.

Revenge Of The Coffee Table

A piece of furniture in this guy's house is fed up with people putting their feet on him all the time, and wants to even the score. He does, in a big way. Quietly, patiently, he plots his revenge.

Sure, maybe he is just a homemade table, with an unsecured glass top. He can still do some damage. He

bides his time, waiting for

just the right moment. Then, finally, the man gets up from the sofa to go to the kitchen—NOW! Guy bumps the edge with his knee as he passes, knocking the tabletop off the frame. A corner of the glass breaks off and takes a flying leap into his bare foot, giving him a two-inch cut that would need a bunch of stitches. Hah—take that! Next time, you'll think twice about putting that foot on me, mister.

Toe-Main In The Kitchen

Chef Boy-that-hurts is fixing dinner and needs a utensil. Not knowing his own strength, he yanks the drawer all the way out and off its tracks. Startled at this development, he drops the drawer, which dives straight for his slippered foot. The next day, the doc diagnoses a fractured big toe and puts our hobbling hero on quarters for two days.

Ribs. But No Sauce

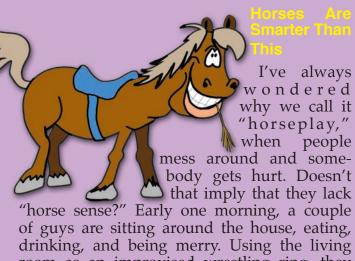
Married people know the joy of sharing their lives. The man in this story also knows the pain of sharing. The poor guy is taking a shower, so he can

go out and do some errands. So far, so good. Then he learns the hard way what happens to the bathtub when your wife uses it for frequent mineral oil baths, and you don't have a non-slip mat. You slip and fall, slamming your side into its hard edge. As a he-man, though, he doesn't let that slow him down—he finishes his shower and runs his errands. An exam the next day shows three fractured ribs and leads to three days on quarters.

Not Exactly Indiana Jones

I think we've all been in this situation: Taking some leave to go home and visit the folks. Unless you're an adventurous archaeology professor, though, you probably haven't bailed out of your car because it was about to go over a cliff, as you were losing control on the fast-freezing slush of a mountain road. While our subject takes an impromptu pavement-induced nap, a friendly

telephone pole stops his car from going over the edge. Some time later, a buddy drives by the scene and spots the unconscious traveler in the middle of the road. A three-digit call summons the meat wagon. The docs diagnose a case of road rash and bruises, and put "Indy" on convalescent leave.



of guys are sitting around the house, eating, drinking, and being merry. Using the living room as an improvised wrestling ring, they find out the hard way that window glass won't support the weight of two grown men. After that, one of them also learns what it's like to make an unhappy ride to the ER, lose copious amounts of blood, have surgery on severed tendons and ligaments in a thumb, and then spend two days on quarters.

No Mo' Sumo

A couple of semi-sumo wrestlers don their 20-pound padded suits and go at it in the ring. Trying a WWE-style takedown, the guy on the floor pushes up hard and dislocates his elbow. He gets 48 hours on quarters and a "There I Was" story.

"Handy" With Motorcycle Maintenance

Bubba has the bike on its center stand, engine running, in neutral, and is cleaning the chain. He's spinning the back tire with one hand, to move the chain, while wiping the chain dry with a rag in the other hand. Then he bumps the gear shift lever, engaging the transmission. That's when his fingers get stuck between the chain and the sprocket. He's able to get unstuck by rotating the back wheel with his free hand. At the hospital, he has surgery on the two damaged digits, and spends some time recuperating there



ATV = Airborne, Tumbling Violently

An ATV rider is wearing a helmet, goggles, gloves and boots, has ridden motorcycles for many years, and has taken a motorcycle safety course, but doesn't ride ATVs much. He's tooling along on a trail, easing slowly down a hill, when a tire gets caught in a rut and flips man and machine multiple times. In this case, one wreck equals eight fractured ribs, one collapsed lung, a fractured collarbone, and a fractured pelvis.

Who's The Hunter Here?

finally,

and

Hunting Harry is driving back from a deer hunting trip when he sees a pair of the critters crossing the highway. They gave him the proverbial "deer in the headlight" freeze, so he steps on the brake, hard enough to start skidding, fishtailing,

over. He's wearing a seatbelt, and comes out of the wreck with some cuts on his face and melon.

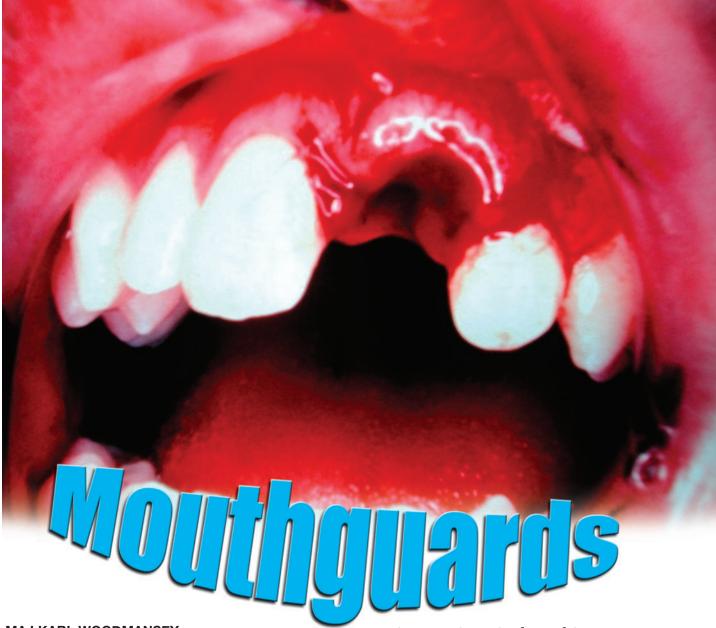
"Safety Glass" Wouldn't Hurt Me

Have you ever smashed a car window with a tire iron, to help a buddy who's locked his keys in the car? If so, did you think that the broken "safety glass" wouldn't be hazardous? One troop finds out the difference between laminated glass in

a windshield, and tempered glass elsewhere, when she smashes the driver's side window, which then does a number on the tendon of her middle finger. Even after four days in the hospital and two days on quarters, there's a bird that won't be doing any flips for a while.

Slin-Slidin' Away

Hard-core jogger dude gets up mighty early one morning for his daily roadwork. Apparently, wet leaves don't make the most secure footing. With a fateful stride, he hears a "crack" from his lower leg, then limps back to his car and drives himself to the ER. The word is two separate fractures and three days on convalescent leave.



MAJ KARL WOODMANSEY 341 MDG Malmstrom AFB MT

ast season at Big Sky, Montana, a snow-boarder landed hard and hit his knee against his chin. The impact left him unconscious and knocked out a front tooth. Today, after 10 months of dental rehabilitation, he wears an athletic mouthguard while snowboarding. If he had been wearing one during the accident, his teeth would likely still be intact, and he might not have even blacked out.

Athletic mouthguards are not just for competitive athletes. Recreational athletes, with less skill, training and conditioning, may be even more likely to sustain oral injuries. For reducing the risk and severity of injuries, mouthguards are just as important as hel-

mets, knee pads and other athletic protective equipment.

The National Youth Sports Foundation (NYSF) has estimated that more than 15 million Americans suffer dental injuries annually, and that five million teeth are knocked out. The NYSF also estimates that during a single athletic season, athletes have a one in 10 chance of a facial or dental injury. The lifetime risk of such an injury is 45 percent. The NYSF said that when wearing a mouthguard, an athlete is 60 times less likely to sustain a dental injury.

Individuals should consider wearing a mouthguard if they participate in any active sport with a risk of falling or injury to the mouth or head. The American Dental Association recommends mouthguard use for the following sports: football, basketball, soccer, volleyball, baseball, softball, racquetball,

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in-line skating, skateboarding, martial arts, boxing, acrobatics, bandy (a European fore-runner of ice hockey), cycling, discus, equestrian sports, field hockey, ice hockey, handball, gymnastics, lacrosse, motocross, rugby, skiing, shot put, skydiving, squash, surfing, trampoline, tennis, wrestling, weight lifting, and water polo.

The proven benefits of athletic mouthguard use have led many athletic and regulatory bodies to impose mandatory mouthguard use. In 1962, faceguards and mouthguards became required for high school football. In 1974, the National Collegiate Athletic Association mandated mouthguard use in collegiate football, lacrosse, field hockey, and ice hockey. Professional and Golden Gloves boxers must also wear mouthguards.

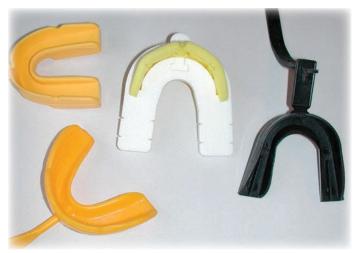
With a limited capacity to heal, teeth are unlike other body tissues. Injured teeth may require fillings, veneers, root canals, crowns, extractions, bridges, partial dentures or dental implants. Mouthguards prevent injuries to more than just teeth. They also protect the lips, cheeks, tongue, jaws, neck, jaw joint, and even the brain. Impacts to the chin are readily transmitted up the lower jawbone through the jaw joint to the brain. By tempering chin blows, mouthguards reduce the incidence of concussions.

Manufacturers market unique varieties of mouthguards, appealing to consumers' diverse desires. Mouthguards are usually designed to fit over the upper teeth, but may be fit to the lower teeth of athletes with severe underbites. The ideal mouthguard is protective, retentive, affordable, and comfortable to wear. It should be durable enough to maintain these properties with use and over time.

When selecting a mouthguard, choose one that's comfortable and will allow for undisturbed speech and breathing during sporting events.

The three broad categories of athletic mouthguards are stock, mouth-formed, and custom. These three types differ greatly in performance, comfort, fit, and cost.

Stock mouthguards are the least expensive (less than \$5) and offer the least protection. A stock mouthguard is a pre-formed rubber, vinyl or dense foam tray that fits loosely over



Stock



Mouth-formed



Custom

the teeth. These mouthguards must be held in place by clenching the teeth together, which limits speaking and oral breathing.

The boil-and-bite type of mouth-formed guards accounts for 90-95 percent of all mouthguards worn. These are softened in boiling water and then adapted to fit over the teeth, as the thermoplastic material cools. Because these are formed at near-body temperatures, it has been reported that they can readily distort and wear through. Boil-and-bite mouthguards are available at sporting goods stores and most Base Exchanges. They are affordably priced (\$1-\$30) and offer protection that varies with fit and quality.

Custom mouthguards are made by a dentist. Most Air Force dental clinics will fabricate custom mouthguards, especially for individuals at high risk of injury, or those unable to adequately fit a boil-and-bite mouthguard. In general, com-

petitive athletes prefer custom mouthguards, because they offer the greatest protection with the least interference to speaking and breathing.

Proper care is essential to ensure maximum longevity and fit of mouthguards. Inspect them for tears or thin areas before each use, rinse and dry them after use, and store them away from heat. When fit deteriorates or significant wear appears, replace the mouthguard. The protective benefits of mouthguards only happen when they are properly positioned in the athlete's mouth.

Athletic injuries to the face are common and may result in serious medical and dental trauma. Athletic mouthguards can significantly reduce the incidence and severity of such injuries. Mouthguards are relatively inexpensive, reasonably comfortable, and able to prevent injuries. Preserve your smile with an athletic mouthguard.



Safety Lit Injury Prevention Literature Update Preventing injuries by providing information^{ss}



SAFETY RESEARCH UPDATE

he following information is courtesy of SafetyLit, a service of the San Diego State University Graduate School of Public Health. SafetyLit summarizes copyrighted reports on safety research. SafetyLit staff and volunteers regularly examine more than 300 journals and scores of reports from government agencies and organizations. We've included these summaries in *Road & Rec* for their interest to the Air Force community. For more, go to this link: www.safetylit.org.

Young Drivers

British researchers studied driving mishaps among drivers ages 17-25. They found that young drivers have three to four times as many accidents per year as older drivers; and even allowing for their relative numbers in the population, their accident involvement is about 2.5 times higher. Police interviews gave an insight into some of the motivational factors underlying their behavior. Young driver accidents were frequently the result of "risk taking" factors, as opposed to "skill deficit" factors. A large percentage of their accidents are purely the result of two or three failures resulting from voluntary risk-taking behavior, rather than skill deficits. Specific groups of young drivers can even be considered as above average in driving skills, but simultaneously have a higher accident involvement because they decide to take risks.

(Source: Accid Anal Prev 2005; 37(3): 523-9. Copyright © 2005, Elsevier Publishing.)

Seatbelt Misuse Can Be Fatal

Although seatbelts significantly reduce the extent and severity of injuries sustained by motor vehicle occupants, seatbelts are associated with chest and abdominal trauma. Less commonly understood are severe neck injuries caused by the use of two-point automatic shoulder harnesses without concurrent use of a manual lap belt. Such injuries may include cervical spine fractures, craniocervical dislocations, and even decapitation. Forensic scientists described four cases of fatal neck injuries as a result of improper seatbelt use—in which an automatic two-point shoulder harness was used without a manual lap restraint. In two cases, the victims were decapitated.

(Source: J Forensic Sci 2005; 50(1): 159-63. Copyright © 2005, American Academy of Forensic Sciences.)

Snowboarder's Spleen

Australian researchers conducted a 10-year study of patients with spleen injuries from snowboarding or skiing. Snowboarders were six times more likely to sustain a spleen injury from blunt abdominal trauma (usually from falls or jumps) than skiers. The risk was 21.7 times greater for male snowboarders than for females. No gender differences were observed for skiers.

(Source: Emergency Med Australas 2005; 17(2): 157-62. Copyright © 2005, Blackwell Publishing.)

Float Like A Butterfly, Wearing A PFD

Researchers in Australia, who studied 333 boating deaths from 1992-98, found that human factors was the main cause of fatalities involving personal watercraft. They found that nearly half the vessels involved lacked enough personal flotation devices (PFDs) for the number of people on board. Among the fatalities, only nine percent were wearing PFDs, and survivors were more than twice as likely to have been wearing them. Raising usage to 75 percent would save five lives each year and \$8 million. Alcohol as a factor in boating deaths (28) percent in excess of 0.05g/100ml) was similar to its contribution to road deaths. Capsize was the most frequent start in the sequence of events resulting in a boating death (36 percent). Capsize was more likely to involve overloading or improper loading, hazardous wind or sea conditions, and dinghies. Twenty-five percent of the vessels involved in fatalities were dinghies, and they were more likely to be overloaded, involve capsize, alcohol, and failure to wear a personal flotation device (PFD).

(Source: Accid Anal Prev 2005; 37(4): 689-98. Copyright © 2005, Elsevier Publishing.)

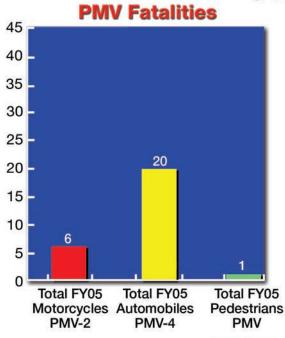
Le Tire Blowouts

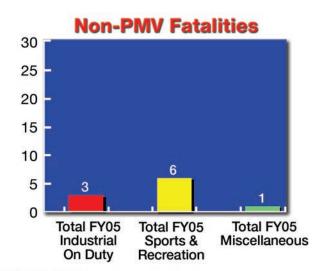
French researchers studied more than 60,000 vehicle crashes that happened from 1996 to 2002. They found that 6.7 percent involved tire blowouts, and 87 percent were one-vehicle mishaps. Tire blowouts occurred in 6.5 percent of cars that represented more than 80 percent of the vehicles involved in crashes. Vans had the highest rates (22 percent), while trucks had the lowest (2.5 percent). Crashes involving blowouts of rear tires occur four times more frequently than blowouts of front tires. Consequently, they say, drivers should put the best tires on the rear wheels.

(Source: Traffic Injury Prev 2005; 6(1): 53-5. Copyright © 2005, Taylor and Francis Group.)



Snapshot on Safety





3rd Qtr FY05 Update

n the third quarter of FY05, automobile mishaps again are the leading cause of death among Airmen. This quarter, we suffered 10 automobile deaths and four motorcycle deaths. As you can see from the chart above, 36 Airman died so far this FY. Every mishap was preventable. There aren't any new ways to get killed. Our folks continue to drive too fast for road conditions, oversteer during emergencies, fail to wear seatbelts, drive while fatigued, and drink and drive. As a result, our Airmen continue to die. Risk management is clearly lacking. Supervisors and peers MUST get involved. Be a Wingman.

Be Prepared For The Unexpected

An Airman operating a motorcycle died when he was struck from the rear by a vehicle, ejected from the motorcycle, and run over by another vehicle. The mishap occurred on a two-lane country road during daylight. The weather was dry and clear. The motorcycle slowed from 55 mph to about 25 mph, because the vehicle in front of him had slowed to allow two farm equipment vehicles to pass over a bridge. The vehicles behind the motorcycle failed to slow from 55 mph and ran into the motorcycle. The Airman wore a helmet and all required riding apparel. He had completed the MSF course and was considered an experienced rider.

Lesson learned: Expect the unexpected. Check your rearview mirrors, and leave yourself an out.

The Airman was on leave and riding his motorcycle at night with two non-Air Force motorcycle operators, en route to a nighttime motorcycle rally. They were traveling a





winding two-lane country road with a posted speed limit of 25 mph. The three motorcycles were traveling at about 50 mph when they entered a rising curve to the left and encountered freshly cut grass on the highway. The Airman was on the lead motorcycle and upon encountering the grass, the motorcycle slid sideways. Reaching a clear area of the road, the motorcycle high-sided, throwing the Airman from his motorcycle, resulting in fatal injuries. He had completed MSF training and wore the required gear, including a helmet. The motorcycle rider directly behind the Airman told investigators that his face-shield was splattered by brake fluid. Post-mishap investigation revealed the rear brake fluid line was loose at the rear caliper. The brake reservoir was empty, and the rear wheel rim and tire had fresh brake fluid residue on them.

Lesson learned: Ensure your vehicle is in good shape. Driving too fast for conditions can kill.

The Airman was driving to work on a fourlane, undivided city highway at between 70-80 mph (speed limit was 70 mph), the weather was dry and clear, but it was not quite dawn. According to a witness, the Airman and another vehicle were engaged in passing and cutting each other off for about three miles before the mishap—a "road rage" incident. The Airman attempted to change lanes from the right to the inner lane, then swiftly attempted to veer back into the right lane, overcorrected, and lost control of his vehicle. The vehicle slid across a 60-foot median into oncoming traffic, and was struck on the passenger side by a vehicle doing about 75 mph. The Airman was ejected through his vehicle rear window by the force of the impact, even though he wore his seatbelt and shoulder restraint. The driver's seatback broke, allowing the Airman to slide out of the restraints. Your vehicle travels 105-120 feet per second at speeds of 70-80 mph. Most drivers lack the necessary skills to recover at these speeds, once they lose control.

Lesson learned: Road rage blurs thinking and is deadly.

Two Airmen had attended a friend's alcohol-free wedding. After they left the wedding, the two went to at least three bars and consumed an unknown amount of alcohol. While driving 70 mph on a dry, four-lane divided highway with a posted speed limit of 45 mph, the Airman driving lost control of his vehicle as he entered a sweeping right curve in the road. The wheels departed the left side of the road. The driver overcorrected, crossed back to the right side of the road, and ran off the pavement. The vehicle traveled 114 feet through deep beach sand, and then rolled at least four times. The passenger was not wearing the shoulder harness and seatbelt, was ejected, and received fatal injuries. The Airman driving the vehicle was wearing his seatbelt and walked away with only minor injuries. His BAC was 0.20.

Lesson learned: Alcohol use, failure to wear seatbelts, driving too fast for road conditions and poor wingman actions resulted in another death.

The Airman was a passenger in the right front seat of a vehicle driven by his Air Force spouse. Their vehicle was traveling at an undetermined speed on a divided interstate during a heavy rainstorm, when the driver lost control and the vehicle hydroplaned. The vehicle slid across the median and into oncoming traffic. The vehicle was struck broadside on the passenger side. Both vehicles slid 72 feet before coming to rest. The passenger received fatal injuries. Both occupants wore seatbelts and no alcohol was involved.

Lesson learned: Going too fast for conditions can kill.

An Airman died after losing control of his All Terrain Vehicle (ATV) while attempting to top a hill. He lost control as he negotiated the almost 90-degree hill. He was riding alone and not wearing a helmet. Although he had ridden ATVs before, his experience level was minimal. Alcohol was not involved.

Lesson learned: Protect yourself and manage your risks ... Helmets save lives! ■



PreventingRunning Injuries

The following general guidelines are intended to strike a balance between improving fitness and avoiding injury. They are not absolute rules, but they should not be easily abandoned without exploring other options. For example, crosstraining can help meet the need for higher levels of fitness, while avoiding the increased risk of injury associated with running more than three days a week.

Slowly and gradually increase running speed, distance, and frequency

- Run no more than three times a week
- Run no more than 30 minutes a session
- Never run in formation; encourage abilitygroup running
- Never run in anything but running shoes (not cross-trainers or basketball shoes)
- Wear properly sized and fitted running shoes (including the correct shoe specification or insert for stability, motion control [overpronation] or for impact absorption [rigid foot])
- Replace pre-session stretching with activityspecific warm-up, and stretch during cool-down periods
- Perform strength and flexibility training for legs
- Select appropriate clothing for visibility, and choose running surfaces with enough light to see hazards (such as motor vehicles, potholes, animal burrows, slick surfaces, etc.)