



FORCE SCIENCE[®] NEWS

Chuck Remsberg
Editor-in-Chief

In This Edition:

- I. New survey reveals dismal truths of use-of-force training
- II. Tourniquet responsibility brings extra stress load, new study finds
- III. "Escape clause" needed in UOF policies

To register for a free, direct-delivery subscription to Force Science[®] News, please visit www.forcescience.org. Articles are sent twice per month via email. For reprint or mass distribution permission, please e-mail: editor@forcescience.org

What do YOU think? Comments sought on PERF call for emphasis on de-escalation tactics

I. New survey reveals dismal truths of use-of-force training

Dr. Bill Lewinski often notes in his public presentations that the average high school football player gets more training in his sport in his brief career than the average peace officer receives in use-of-force instruction across his or her entire working life.

Now a first-of-its-kind survey by Calibre Press has confirmed that dismal truth.



FORCE SCIENCE[®]
INSTITUTE

Recently, Calibre editors invited readers of its popular "Street Survival" newsletter to complete an anonymous Survey Monkey poll regarding their departmental training policies. Nearly 900 officers from small agencies to large participated, with these results:

Range time. Nearly two-thirds of officers said they are required by policy to shoot on the range with their sidearm only once (23.66%) or twice (37.66%) a year. Only about 8% have to shoot as often as monthly.

Qualification. Monthly official qualification with their sidearm is required for only 1.37%, while roughly 84% need to qualify only annually (46.81%) or semi-annually (37.24%).

Scenarios. The monthly requirement shrinks even more (to 0.91%) when it comes to "dynamic 'shoot/don't shoot' scenario-type training." One-quarter never have to experience such training, and over half (56.26%) do so only once a year or less often.

DT training. Close to 15% of officers said they are never required by policy to do "defensive/control tactics-type training." For two-thirds (63.82%), such training is mandated only once a year (42.32%) or less (21.5%). Fewer than 2% must train hands-on monthly.

Less-lethal. Monthly requirement virtually fades off the chart (at 0.57%) when it comes to training with "less-than-lethal weapons" such as TASERS, batons, and OC spray. Annual training predominates at over 55%. One in five officers trains less frequently than

that, and over 10% never have to engage in this type of training.

A full breakdown of survey responses is available without charge at: [CLICKING HERE](https://www.surveymonkey.com/results/SM-QFX9QXRR/)
<https://www.surveymonkey.com/results/SM-QFX9QXRR/>

Jim Glennon, Calibre's director of training and lead instructor for its Street Survival Seminar, observes:

"The line is being pushed by the media and by critics like the Police Executive Research Forum that departments and academies are overly invested in 'warrior'-type military training, spending too many hours on the range and teaching defensive tactics at the expense of emphasizing communication.

"In reality, as this survey shows, we're just scratching the surface of use-of-force training, teaching the very barest fundamentals. When a quarter of departments never do dynamic force training and over half train with scenarios at most once a year, it is very disingenuous to claim that use-of-force training is over-emphasized.

"When officers over-react or under-react on the street, it's usually because they have not been sufficiently conditioned to respond appropriately through realistic training under stress. What's needed is not less training in this area but more."

Dr. Lewinski, executive director of the Force Science Institute, adds:

"The public expectation is that law enforcement officers will perform flawlessly

when thrust into life-or-death force encounters. But when these are the standards of practice and training demanded of officers by their departments, how can anything even approaching perfection reasonably be anticipated?

"Yes, conscientious officers will supplement the minimal requirements with training on their own time and dime. But that's an approach for enhancing individual excellence, not a universal solution.

"Raising the use-of-force training bar by policy for all officers and designing training that truly reflects the challenges of the street should be the top priorities of any demands for police 'reform.' "

Our thanks to Crawford Coates, Calibre Press publisher, for helping to facilitate this report.

II. Tourniquet responsibility brings extra stress load, new study finds

A research team headed by a certified Force Science Analyst has explored an important concern that may be overlooked in typical field-medicine training for LEOs: How much extra stress is inflicted on an officer who needs to apply a tourniquet to a severely injured colleague?

This question was investigated recently in Scottsdale, AZ, with the help of 236 police volunteers.

The study, believed to be the first of its kind, was headed by Force Science grad Todd Larson, a retired Scottsdale PD lieutenant who is now director of the Simulator Training Lab operated by the HonorHealth

medical services network. The HonorHealth Trauma Dept. partnered in the research, and Force Science instructor Dr. Matthew Sztajnkrycer, an emergency medicine specialist with the Mayo Clinic, consulted on the project as a subject-matter expert.

SAMPLE SPECS. Of the volunteers, all sworn personnel with Scottsdale PD, 85% were male, mostly in the 21-40 age range, with nearly 75% on the job for 15 years or less. Five per cent reported getting no regular exercise; the others followed a fitness routine from one to five or more times a week.

A minority (28%) had been in the military, had military medical experience (2%), and had been "deployed in a war-type setting" (14%). Less than 10% reported other prior medical experience.

About half had received some tourniquet training, and most reported a mid-level confidence in their ability to properly apply this potentially life-saving device.

STRESS SCENARIO. First in Larson's study, Air Force registered nurses took the participants' blood pressure and pulse to establish baselines. Then after 45 minutes of lecture and videos on tourniquet use and a practice session, the officers were paired for live, stress-inducing scenarios. Some participants were fitted with heart monitors.

Sitting in a patrol car, the teams one at a time hear radio traffic of a hot call, an active shooter in progress. An unseen officer responds, gets into a gunfight, and calls out that he is hit in the leg. Then his radio goes quiet.

When the test officers rush to the scene, they enter a shoot-house made up like a drug store/pharmacy. Immediately inside, they're assailed by gunfire (safety blanks from training guns) and battle to incapacitate the attacker. Once he's down, they search for and find the wounded officer, bleeding profusely.

This "officer" is, in fact, a "high-fidelity simulator," a highly sophisticated, computerized medical training manikin that can produce a stunning array of human qualities. Among other things, it can breathe, talk, register heart tones and a palpable pulse, bleed, and respond to treatment.

In this case, the injured "officer" speaks briefly, then "passes out, in shock." One officer from each team must apply a tourniquet to stanch the dangerous hemorrhaging, while his partner provides cover and conducts radio communication.

After the scenario, the participants' vitals were checked again.

PHYSIOLOGICAL GAP. "We found statistically significant physiological differences between officers who had to manage the tourniquet and those who simply provided cover," Larson told Force Science News. "Both had come under 'gunfire' that simulated a life threat and, of course, that boosted their stress levels. But the act of providing emergency medical care with the tourniquet added an additional layer of stress on top of that. The physiological effect on the tourniquet officer's body was very high."

The average heart rate for cover officers, for example, rose from 78 bpm before the

scenario to more than 98 bpm afterward, an increase of about 26%. But for tourniquet officers, the increase spiked by nearly 40%, up from about 77 bpm to more than 107. "Those wearing heart monitors spiked to nearly 200 beats per minute in some cases," Larson says.

Likewise, his team found that tourniquet placers on average had statistically significant elevations of blood pressure beyond what the cover officers experienced.

Larson points to three major correlations in the findings:

- Age: Older officers tended to "perform better" (i.e., "showed less physiological stress") than younger officers;
- Tenure: Those with 10 or more years of service performed better;
- Medical experience: Those who had prior medical experience (including military medical) performed better.

"An officer over 50 years old with 20-plus years on the job who has prior medical training appeared less impacted by physiological stress during tourniquet application," Larson summarizes.

Confidence level going in, incidentally, proved to have "no correlation to actual stress reaction or performance," Larson says.

TAKE-AWAYS. HonorHealth researchers and Dr. Sztajnkrzyer will be mining the research data for other relevant information, Larson says. Meanwhile, Larson offers these observations on the findings in hand:

"When we add a medical component to an officer's responsibilities in a high-stress situation, we have to recognize that we are significantly increasing that officer's physiological load and that his or her human performance may be degraded as a result.

"We can't just hand an officer a tourniquet and say, 'Use it when you need it.' There must be training and practice, and not just one-time training either. And just like in shooting situations, we can't expect that officers are always going to make perfect decisions when their body is under stress.

"Tourniquet proficiency is important. There are many critical situations in today's world that just won't wait until EMS arrives. Officers need to be prepared to stop serious bleeding on themselves, on partners, and on civilian victims. You never know when that moment is going to hit."

Case in point: Shortly after participating in Larson's research, one of the officer volunteers received an urgent "subject with a knife" call. "A male subject had sliced an artery in cutting his arm to the bone with a bread knife," Larson says. "He was starting to pass out when the officer arrived.

"The officer applied a tourniquet and stopped the bleeding. Without that, the subject absolutely would have died."

For more information, Todd Larson can be reached at:

Todd.Larson@HonorHealth.com.

HonorHealth plans to pursue publication of this research in a professional journal. The initial findings will be presented at the Emergency Medical Services Odyssey Conference on June 9 in Phoenix.

III. "Escape clause" needed in UOF policies

Does your department's use-of-force policy allow officers to deviate from it in unanticipated but reasonable ways?

Such an "escape hatch" provision is critical because officers may not always be able to conform to policy, despite their best intentions, according to an article by Jamie Borden in Vegas Beat, a publication of the Las Vegas Police Protection Assn.

Borden is a force investigator and force policy crafter for the Henderson (NV) PD. The first officer to receive certification from the Force Science Institute as an Advanced Specialist in Human Factors, he is also an instructor in the two-day Force Science Basics seminar and the week-long Force Science Analysis certification course.

"With the onset of digital cameras and cell phone videos, the [force] game has changed significantly, and policies need more thought and scrutiny than ever before," Borden writes.

But in drafting or updating them, departments need to realize that in some critical incidents, where an officer is fighting for his or her life, a "policy-perfect scenario" of response may not be possible, he argues.

Policy may state that only a "trained" use of force or compliance technique is permissible. But in rare, desperate cases, an officer may be forced to improvise an "outside-the-box" tactic or technique to survive, Borden says.

To cover such exigencies, he recommends including language to this effect: "If an officer uses an improvised technique or tactic, in a dynamic and rapidly evolving situation, the officer will specifically articulate the need to do so. Also, the officer shall articulate and describe the improvised technique or tactic."

This accommodates unforeseen realities of the street but still allows officers to be held accountable for behaving reasonably, albeit unorthodoxly, given the circumstances.

"It is negligent thinking to expect a policy to cover every aspect of the application of a use of force," Borden writes. "[P]olicy cannot possibly list every justifiable and reasonable response in an infinite array of possible force encounters or levels of resistance."

Accommodating an exception to a general rule "is not implying that an officer should use excessive, unnecessary, or unreasonable force," he emphasizes.

In the article, Borden expands on his policy philosophy, including his belief that references to any kind of force continuum should be removed from policy guidelines.

The article, "Use of Force Policy Matters--Pre- and Post-Incident," can be accessed in full free of charge by clicking here <http://digital.911media.com/i/678564-may-june-2016>

NOTE: Go to pg. 12 to begin reading.

Written by Force Science Institute
2016

Visit www.forcescience.org for more information

Reprints allowed by request. For reprint clearance, please e-mail: editor@forcescience.org. To unsubscribe from these mailings, please send your request to editor@forcescience.org and you will be removed promptly.