

# Officer Stress Linked to CVD: What We Know

*James M. Vicini Jr.*

*U.S. Probation Officer Administrator, National Training Academy*

**WHEN I BEGAN** researching law enforcement officer safety information in late February of 2013, I found myself on the Officer Down Memorial website ([www.odmp.org/](http://www.odmp.org/)). I followed a link to a July 5, 2012 memorandum from the National Tactical Officers Association that provided information related to officer deaths during training. As I scrolled through the brief descriptions of each incident, I came upon a name that was familiar to me. Reading the biography of the officer, I suddenly realized that I had known and worked with him as a police officer before beginning my career with U.S. Probation and Pretrial Services. Sadly, he had died in 2007 while attending training with the U.S. Marshals Service at the Federal Law Enforcement Training Center (FLETC) in Glynco, GA. He had suffered a heart attack while participating in physical training and, despite efforts of those there to resuscitate him, died at the age of 36, leaving behind a wife and an 11-year-old son.

According to the National Tactical Officers Association memorandum, 14 officers did not return home from training exercises in 2011. Most sobering was the nature of the officers' demise. One officer died from a gunshot wound, one officer drowned, one officer died in a rappelling accident; however, 11 officers suffered medical conditions that included heart attacks, heat stroke, pulmonary embolism, and stroke. Over 79 percent of officers who died in training exercises that year died from some form of medical condition, and most of those conditions were closely associated with cardiovascular disease (CVD). In further researching law enforcement officer fatalities from heart attacks and

other medical-related causes, I found that heart attack was overwhelmingly represented as the cause of officers' death in training. Even more surprising were the ages of the officers. The youngest officers reported were 21 years old (many of these younger officers had other contributing factors to death), and the oldest officer was 62. The average of the 50 officers whose age had been identified was 41.04 years old. I found that, overwhelmingly, these officers were in their late 30s and early 40s.

My initial response, a response I have commonly heard throughout my law enforcement career, was, "These officers must have been physically de-conditioned, and tried to push too hard during training." However, when I more closely reviewed several cases, I identified a 41-year-old male who was a former airborne ranger and had placed second in a triathlon just one year before his death. I identified a 43-year-old officer who was an avid runner and coached a youth running club. I also noted a 51-year-old former Navy Seal, among many other officers, who had participated in activities synonymous with physical health and fitness. And in fact from within the past five years at least two federal agents known to me personally succumbed suddenly to cardiovascular-related deaths before retirement. My interactions with both of them gave me the impression that they were very physically fit and healthy people.

I wondered, "Is this normal? Does it translate to the general population?"

The next website I turned to was the National Center for Biotechnology Information, which contains information from the U.S. National Library of Medicine and the National Institutes of Health. Numerous

studies have been performed regarding the link between cardiovascular disease and stress. Several of these studies have focused primarily on the law enforcement community, since "law enforcement is considered to be one of the most stressful occupations" (National Institute for Occupational Safety and Health, 2008).

Studies show that law enforcement officers suffer higher morbidity and mortality rates than those of the general population, with a reported prevalence of cardiovascular disease 1.7 times higher (Zimmerman, 2012). Further, law enforcement officers have a higher incidence of atherosclerosis, even when they are relatively young. Employed officers show a high prevalence of risk factors traditionally associated with CVD, including hypertension, hyperlipidemia, metabolic syndrome, cigarette smoking, and a sedentary lifestyle. Obesity may be reported more commonly among officers than among civilians, although diabetes is present less frequently. Studies show that 80 to 83 percent of the law enforcement officers had a body mass index (BMI) greater than 25.0 (considered overweight or obese). One caveat identified, however, is that officers generally have a higher percentage of lean muscle mass, which is a statistic often used when determining one's overall health. Surprisingly, even in the presence of several significant risk factors identified in a study (such as overweight, obesity, perceived stress, vital exhaustion, and relevant physical inactivity), most officers (93 percent) rated their health as "good to excellent" (Ramey, 2011). This indicates a possible lack of awareness by officers of their CVD risk.

Law enforcement personnel are also exposed to occupation-specific risk factors that include sudden physical exertion, acute and chronic psychological stress, shift work, and noise. Critical incident stress, commonly thought to pose the greatest risk to law enforcement officers, includes exposure to traumatic and/or violent events such as physical danger, violence, death, crime, homicides, accidents, and injury. One study shows the correlation of Post Traumatic Stress Disorder (PTSD) to CVD as high as 95 percent (Violanti, 2006).

Chronic exposure to any stress may result in vital exhaustion. Vital exhaustion, primarily measured through questionnaire, is characterized by excessive fatigue, irritability, and demoralization. Studies have identified that working in law enforcement exposes officers to multiple types of stress, from both critical incidents and organizational sources. These same studies have revealed that the majority of occupational stress for officers arises from within the law enforcement organization itself. Organizational stressors, reported four to six times greater than those of critical incident stressors, include extended work hours, shift work, a negative public image, and a governance structure that is usually hierarchical and paramilitaristic and often involves a top-down style of management. Other constructs associated with occupational stress include an imbalance between job demands and job control, and between effort and reward.

Several studies have shown that the occupational stressors ranking highest were not specific to the actual work of law enforcement, but to organizational issues such as the demands of work impinging upon home life, lack of consultation and communication, lack of control over workload, inadequate support, and excess workload in general. One specific British study performed in the United Kingdom notes: "Much work has been done to try to identify the issues most associated with police stress. The greater part of this work stems from the USA and is not necessarily directly comparable to this country. However, an interesting and perhaps surprising finding within the US data is that it is not operational aspects, such as the risk of violence or exposure to traumatic events, which are perceived as most stressful—but, rather, organizational issues, such as managerial structure and climate." The British study identified the two most significant stressors as: 1) Demands of work impinging on home and 2) Not enough support from superior officers (Collins, 2003).

Behavioral patterns were also of concern in the UK study, which found that law enforcement officers appear to respond to feeling stressed with negative/withdrawal behavior patterns of working harder, taking work home, and keeping things to themselves, rather than taking breaks, delegating to others, or talking to colleagues. They were also less likely to use exercise to release tension, and smokers among them were more likely to increase their consumption, with some non-smokers seeming to be prepared to adopt the habit. Disturbingly, law enforcement officers under stress also were more likely to take their stress out on colleagues or the public.

The British article also points to previous evidence that supports personal predisposition to anxiety. These individuals may be more likely to report stress independent of any work-related factors. This may be linked to particular personality types, notably Type A, that appear more stress-prone. It is possible that an increased proportion of particular personality types may enter law enforcement, both by self-selection and by recruitment selection. Type A personalities, for example, are likely to be attractive to law enforcement because of several common characteristics they share, such as high levels of drive, competitiveness, and achievement. It is also possible that the development of Type A behavior is positively encouraged by the law enforcement culture and that some of these traits may be culturally acquired.

So what are possible remedies to this problem? Some worthy suggestions from the authors of these articles include the following:

Interventions should include changes at the level of the individual officer, management, and policy within law enforcement agencies. Individual officer behavior changes should address physical activity, healthy eating, and stress recognition and management. Other interventions include transformational leadership principles, increased support in the form of health education for officers, clarification of job expectations, and better communication within the organization.

Nationally, the federal probation and pretrial services system that I am a member of has recognized a need for officer wellness programs through training and education. A group was formed to implement curriculum into the officer training at the National Training Academy for federal probation and pretrial services officers; this group continues to work on other programs as well as on policy and guidance. At the local level, many federal

probation and pretrial services districts have implemented health and wellness programs that provide education, training, and participation in classes and challenges.

Law enforcement officers need to be aware of the excessive prevalence of overweight and obesity in their ranks. Evidence shows that regular physical training can both reduce stress and improve mental well-being. This would correspond to the need for good general fitness for the physical demands of law enforcement officers.

Awareness of CVD risk is needed for those employed in law enforcement to facilitate disease management. This is especially relevant in the current economic climate, with officers working more hours and longer years into their career. Ongoing screenings and assessments of officers' health are essential. Half or more of all the officers in these studies reported often feeling tired, repeatedly waking during the night, or waking feeling exhausted and fatigued. Officers should consider requesting that their physicians test for signs of CVD and other illness/disease at regular check-ups, even if they are younger than the standard risk profiles show, since members of the law enforcement profession have been identified as exhibiting the premature onset of such problems.

Management staff must make efforts to identify when officers are becoming overwhelmed with workload. Apportioning work in an equitable manner is essential, both to avoid overloading certain officers and to help all officers feel valued and rewarded. A common pitfall is to "reward" officers who perform well—by giving them additional work. Taking into account the Type A personality factor, which as noted above is prevalent within our system, officers may take on more than they are capable of in an effort to satisfy management and peers.

As this article was being written, I was made aware of an incident that had occurred in St. Paul, Minnesota. Police officer Josh Lynaugh, 30 years old, became ill after a foot pursuit and was treated for a heart attack at a nearby hospital, where he died.

Sadly, it is my opinion that this already prevalent issue may be underreported. The data related to officer deaths only reported incidents during training, and therefore is likely to be incomplete. The sources providing information related to CVD symptoms were confined to small control groups, all employed as officers at the time the studies were conducted. When considering other

variables, such as officers who succumbed to CVD-related ailments while off-duty, shortly after retirement, or while performing their duties such as Officer Josh Lynaugh, the numbers may increase significantly. According to the UK study, a very large number of officers identified that they considered leaving law enforcement due to the stress involved. We must also acknowledge that some former officers now in the civilian population may be suffering from some form of CVD symptoms as well.

As individuals and collectively as members of law enforcement systems we must first acknowledge this issue and then accept that it is our responsibility to care for ourselves and our co-workers, for the sake of our own lives,

our families, and our mandate to effectively and efficiently serve the law enforcement systems to which we belong.

## References

- Collins, P.A. & Gibbs, A.C.C. (2003, March). Stress in police officers: A study of the origins, prevalence and severity of stress related symptoms within a county police force. *Oxford Journal, Medicine, Occupational Medicine*, 53(4): 256–264. Web National Institutes of Health. [www.nih.gov/OfficerDownMemorialPage](http://www.nih.gov/OfficerDownMemorialPage). [www.odmp.org/](http://www.odmp.org/)
- Ramey, S. L., Perkounkova, Y., Downing, N.R., Culp, K.R. (2011, May). Relationship of cardiovascular disease to stress and vital exhaustion in an urban, Midwestern police department. *American Association of Occupational Health Nurses Journal*, 59(5): 221–7. Web.
- Ramey, S. L., Downing, N.R., Franke, W.D., Perkounkova, Y., Alasagheirin, M.H. (2012, January). Relationships among stress measures, risk factors, and inflammatory biomarkers in law enforcement officers. *Biological Resource for Nursing*, 14(1): 16–26. Web.
- Violanti, J.M., Fekedulegn, D., Hartley, T.A., Andrew, M., Charles, L.E., Mnatsakanova, A., Burchfiel, C.M. (2006). Police trauma and cardiovascular disease: Association between PTSD symptoms and metabolic syndrome. *International Journal of Emergency Mental Health*, 8(4): 227–37. Web.
- Zimmerman, F.H., Cardiovascular disease and risk factors in law enforcement personnel: A comprehensive review. *Cardiology in Review*. 2012 Jul–Aug; 20(4): 159–66. Web.