**EMS, Provider Health And Wellness**

Steven Mountfort; Sandeep Sharma.

[Author Information](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/books/NBK493236/#__NBK493236_ai__)

Last Update: February 28, 2019.

[Go to:](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/books/NBK493236/)

**Introduction**

Emergency medical services (EMS) workers may experience mental, physical, and emotional stresses every shift they work. It is a job which commonly has high levels of stress, increasing incidents of post-traumatic stress disorder (PTSD), and on the job injuries. These issues contribute to high rates of suicide, job-related burnout, clinical depression, and physical conditions which no longer allows the EMS provider to work in the field. Personal health and physical, emotional, and mental wellness play a critical role in helping EMS workers survive in their careers.[[1][2][3][4][5]](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/books/NBK493236/)

EMS workers are highly-trained, medical personnel who assist, or work as an extension of, a physician, usually in the pre-hospital setting. Modern-day EMS began after the National Research Council released their 1966 White paper titled, *Accidental Death and Disability: The Neglected Disease of Modern Society*. It found that due to the high incident of accidental death in the United States, public safety needed to include national, standardized, and advanced medical training. This paper was the impetus for the National Standard Paramedic Curriculum. In 2014, the United States (US) Department of Labor, Bureau of Labor Statistics estimated there were 241,200 paramedic jobs with a predicted 24% job growth rate over the following 8 years. Since inception, EMS providers have long been known for their ability to help patients in the most extreme circumstances. This may happen in any setting, from the middle of a major interstate highway during the heat of summer, to the open farmlands in freezing temperatures, to the highest of crime-ridden areas of urban areas. Along with dealing with difficult environments and high patient acuity, the release of catecholamines while driving “lights and siren” has labeled many in the industry as “adrenaline junkies.” These aspects of the job attract specific personality types to the EMS field. Dr. Jeffery Mitchell documented general personality traits of emergency personnel as:

* Need to be in control
* Obsessive
* Compulsive
* Highly motivated by internal factors
* Action-oriented
* High need for stimulation
* Need immediate gratification
* Easily bored
* Risk takers
* Rescue personality
* Highly dedicated
* Strong demand to be needed

Mitchell stated that these traits make EMS workers continue to work, even in the face of harm to themselves. In addition to the mental and emotional toll the industry can take on the provider, it is not uncommon to go from a deep sleep to moving a 300-pound patient 15 minutes later. There is no time for stretching or warming the muscles up before they are stressed. Furthermore, until recently, most EMS agencies worked 24-hour shifts for their employees. This schedule, in addition to low wages and the need for multiple jobs, was a significant reason for the sleep debt providers incur. Sleep debt is defined as the difference between the amount the EMS provider can obtain, and the amount of sleep the EMS provider requires not to feel severally tired. Over one-half of all EMS workers report inadequate sleep, poor sleep quality, and/or poor recovery between shifts.[[6][7]](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/books/NBK493236/)

[Go to:](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/books/NBK493236/)

**Issues of Concern**

Stress is an everyday part of an EMS workers career. It can be categorized in 2 ways: eustress and distress. Eustress is known as “positive stress.” This can be found in such things as getting a raise at work, becoming married, finding out of an expecting child, or having family members visit. Distress is the opposite. It is "negative stress" such as a family member's death, monetary debt, divorce, having a patient die, or difficulties with fellow employees at work. This stress, along with poor sleeping patterns and inadequate eating habits, have been some of the causes in the high number of EMS job-related burnouts. These high-intensity stressors can lead to acute stress reactions, delayed stress reactions, and cumulative stress reaction. It can also lead to anxiety, depression, substance abuse disorder, PTSD, and suicide.

Due to the unknown nature of when emergency responses are needed, EMS crews rarely have set schedules at which they can eat. This uncertainty leads to eating food that they can purchase quickly and inexpressively (fast food). This was reflected in a study published in a 2009 *Obesity* journal article which found 75% of the fire department and EMS recruits to be either overweight or obese.

In the last 25 years, sleep disorders have become a great concern for public health. Conditions such as sleep apnea, insomnia, and circadian rhythm sleep-wake disorders how shown to have grave health effects on the patients. Of these, the circadian rhythm sleep-wake disorders play a big role in EMS workers health. This is due to the 24-hour shift work and the constant waking to respond to emergency calls.

According to the US Department of Labor, EMS providers suffer more work-related injuries than the average public. More specifically, in 2009 a study on the comparison of public safety provider injury rates found EMS practitioners are more likely to miss work because of injury then either those in the Fire or Police services. Additionally, in 2016 one study found that two-thirds of EMS providers reported they experienced at least one form of violence in the previous 12 months.

[Go to:](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/books/NBK493236/)

**Clinical Significance**

The first step in solving these problems is first to acknowledge there is a problem. Throughout most of EMS history, it was “weak” or “not tough” for the provider to admit there were any responses to these stressful stimuli. Currently, there are programs such as the Code Green campaign acts as an EMS mental health advocacy and education organization. The organization states "The campaign has two main goals. Our primary goal is raising awareness of the high rates of mental health issues that affect first responders. Due to the stresses first responders are exposed to, they have increased rates of PTSD, depression, anxiety, substance abuse and suicide. In addition, we aim to provide education for responders on multiple mental health related topics" (http://codegreenstore.com/about/)

Code Green along with other entities such as NAEMT, Journal of Emergency Medical Services, and EMS1 have been attempting to educate providers on the dangers of these stressors. Additionally, they have been teaching courses on resiliency, trying to keep balance in a person’s life, and when and where to seek help when it is needed.

Workers in EMS have been facing health and wellness challenges since the inception of modern day EMS. It is only in recent years that the industry has begun to attempt to study the causes and workable solutions to these problems. It is only through education, willingness to study, acceptance of the problems, and a change in the culture of EMS providers that are going to reverse the damage the industry can do.[[8][9][10]](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/books/NBK493236/)

[Go to:](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/books/NBK493236/)

**Questions**

To access free multiple choice questions on this topic, [click here.](https://knowledge.statpearls.com/chapter/0/31809?utm_source=pubmed)

[Go to:](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/books/NBK493236/)

**References**

1.

Robinson MJ, Taylor J, Brett SJ, Nolan JP, Thomas M, Reeves BC, Rogers CA, Voss S, Clout M, Benger JR., AIRWAYS-2 study team. Design and implementation of a large and complex trial in emergency medical services. Trials. 2019 Feb 08;20(1):108. [[PMC free article](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pmc/articles/PMC6368693/)] [[PubMed](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pubmed/30736841)]

2.

Carroll G, Levy K, Pescatore R, Hong R. Examination of EMS Decision Making in Determining Suitability of Patient Diversion to Urgent Care Centers. Healthcare (Basel). 2019 Feb 02;7(1) [[PMC free article](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pmc/articles/PMC6473233/)] [[PubMed](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pubmed/30717383)]

3.

Vikke HS, Vittinghus S, Giebner M, Kolmos HJ, Smith K, Castrén M, Lindström V. Compliance with hand hygiene in emergency medical services: an international observational study. Emerg Med J. 2019 Mar;36(3):171-175. [[PMC free article](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pmc/articles/PMC6580871/)] [[PubMed](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pubmed/30692145)]

4.

Staats K, Mercer MP, Bosson N, Joelle Donofrio J, Schlesinger S, Sanko S, Kazan C, Brown J, Loza-Gomez A, Eckstein M, Gausche-Hill M. The Digital EMS California Academy of Learning: One State's Innovative Approach to EMS Fellow Education. AEM Educ Train. 2019 Jan;3(1):96-99. [[PMC free article](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pmc/articles/PMC6339540/)] [[PubMed](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pubmed/30680354)]

5.

Jong M, Elliott N, Nguyen M, Goyke T, Johnson S, Cook M, Lindauer L, Best K, Gernerd D, Morolla L, Matuzsan Z, Kane B. Assessment of Emergency Medicine Resident Performance in an Adult Simulation Using a Multisource Feedback Approach. West J Emerg Med. 2019 Jan;20(1):64-70. [[PMC free article](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pmc/articles/PMC6324708/)] [[PubMed](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pubmed/30643603)]

6.

Gregg A, Tutek J, Leatherwood MD, Crawford W, Friend R, Crowther M, McKinney R. Systematic Review of Community Paramedicine and EMS Mobile Integrated Health Care Interventions in the United States. Popul Health Manag. 2019 Jan 07; [[PubMed](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pubmed/30614761)]

7.

Jeruzal JN, Boland LL, Frazer MS, Kamrud JW, Myers RN, Lick CJ, Stevens AC. Emergency medical services provider perspectives on pediatric calls: A qualitative study. Prehosp Emerg Care. 2018 Nov 27;:1-26. [[PubMed](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pubmed/30482077)]

8.

Glomb NW, Kosoko AA, Doughty CB, Rus MC, Shah MI, Cox M, Galapi C, Parkes PS, Kumar S, Laba B. Needs Assessment for Simulation Training for Prehospital Providers in Botswana. Prehosp Disaster Med. 2018 Dec;33(6):621-626. [[PubMed](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pubmed/30419999)]

9.

Backer HD, D'Arcy NT, Davis AJ, Barton B, Sporer KA. Statewide Method of Measuring Ambulance Patient Offload Times. Prehosp Emerg Care. 2018 Oct 25;:1-8. [[PubMed](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pubmed/30257596)]

10.

Breeman W, Poublon NA, Verhofstad MHJ, Van Lieshout EMM. Safety of on-scene medical care by EMS nurses in non-transported patients: a prospective, observational study. Scand J Trauma Resusc Emerg Med. 2018 Sep 14;26(1):79. [[PMC free article](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pmc/articles/PMC6137918/)] [[PubMed](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/pubmed/30217231)]

[Copyright](https://www-ncbi-nlm-nih-gov.proxy-bc.researchport.umd.edu/books/about/copyright/) © 2019, StatPearls Publishing LLC.