Many people, particularly those in the emergency and medical fields, go through emotional turmoil. In our careers in EMS we’ve had coworkers commit suicide and several partners with depression and alcohol abuse problems. In Melbourne, Australia over 36% of paramedics suffer some form of depression. In the United States, the Chicago Fire Department experienced seven suicides in an 18-month period between 2007 and 2008.

EMS workers are subject to the high use of 9-1-1 systems and relatively frequent exposure to stressful situations, such as abuse cases, assaults, motor vehicle crashes, deaths, etc. All of this places providers, who otherwise have no training on how to personally deal with emotional stress, at high risk for emotional unrest and exhaustion. Without intervention, mental and emotional fatigue can rapidly lead to burnout in a provider.

What Is Burnout?

Burnout is typically described as an individual’s pattern of negative affective responses that further reduces his or her own job satisfaction, productivity and job performance and is known to increase absenteeism and turnover. It may also be an indicator of a more serious problem: post-traumatic stress disorder (PTSD).
Burnout, which is essentially the presence of a constant negative attitude toward any aspect of an individual’s work, goes through three phases: emotional exhaustion, depersonalization and losing one’s sense of personal accomplishment. There are many symptoms of emotional exhaustion, including a negative attitude, physical exhaustion, feeling “drained” and lacking the desire to interact with others. However, it can be best described as the provider who seems to have lost his or her sympathy and empathy for their patients.

When someone is depersonalizing in EMS, they speak negatively about their patients and belittle their own work. These attitudes are a coping mechanism intended to justify feelings that the affected patients are “less human” or “more deserving” of negative experiences, so no empathy for them is needed. A very dark example of this is thinking that someone, “got what they deserved.”

The last phase of burnout, loss of personal accomplishment, occurs when the provider with burnout gets only a reduced satisfaction, or no satisfaction out of their job. Burnout occurs for many reasons. In EMS burnout is attributed to: high call volumes—particularly with low-acuity patients; organizational limitations; limited medical scope of practice; and lack of rewards. Additionally, poor support and poor communication from leadership is known to further exacerbate burnout. One study found the top causes of emergency services burnout are:

- Abuse of the 9-1-1 system.
- Extensive time shift length.
- Extended length of services.
- High call volume.
- Sleep deprivation.
- Lack of administrative support.

### Post-Traumatic Stress Disorder (PTSD)

One of the most stressful and emotionally draining experiences for anyone, regardless of their education or training, is an event which puts them at risk for serious injury and or death. Recent studies have put the current annual fatality rate for paramedics at 12.7 per 100,000 paramedics, compared to 5.0 per 100,000 for the general American population. Paramedics have more than double the annual fatality rate of the general U.S. population. Why? Well, because the very nature of EMS—driving with lights and sirens at high speeds, or working in a helicopter above the ground—puts all EMS workers at increased risk for injury, and with it, heightening the potential for PTSD.

PTSD is an anxiety-type disorder occurring after a traumatic experience involving the threat of, or actual, injury or death. PTSD was first listed and identified as a psychological disease in 1980 in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III), and is considered a disease whose victims strive to prevent thoughts, feelings, situations and activities that remind them of some shocking or painful experience that occurred in their past.

A PTSD triggering event is described as severe enough to be distressing to the majority of the population and also must cause outward psychological symptoms outside the range of normal human experiences. This stressor could be a variety of events such as the death of a young child, loss of a home due to disaster or witnessing a murder; the specific type of stressor is not nearly as important as its length and the longer an individual suffers from the stressor the more severe PTSD tends to become.

For EMS providers, this can also include

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**The Connection Between Warfare and PTSD**

One of the largest influences for the identification of PTSD was the overwhelming number of Vietnam War veterans who found enormous difficulty returning to civilian life following the war. Psychiatrists estimate several hundred thousand of the 3.5 million U.S. Vietnam veterans suffer from PTSD.

With the advent of diagnoses for PTSD, many previously overlooked war-related mental disorders suddenly became clearer. Shell shock, the World War I disorder named for the supposed effect of bombs passing over entrenched soldiers that caused roughly 40% of soldiers “to go mad,” had strikingly similar characteristics to PTSD: anxiety, depression, increased startle reaction, memory loss, insomnia and heightened fears. Chronic fatigue syndrome, also known as battle fatigue (WWII), characterized by debilitating tiredness and exhaustion, as well as neurosis (war neurosis), the most antiquated version of the summation of war-related mental disorders caused by wartime experiences (used as a general term among military physicians throughout the 1900s), both had symptoms identical to PTSD. A trend can clearly be seen in the wars, and general military engagements, prior to the Vietnam War, and this trend has been reinforced by the identification, and listing, of all these terms—shell shock, battle fatigue, chronic fatigue, war neurosis—as synonyms with PTSD.

Retrospective analyses of 20th century wars demonstrate strong evidence that the veterans of these conflicts suffered from PTSD; yet at the same time, it is also evident not all war veterans, not even a majority, have suffered from the disease. Many psychologists who study the disease argue this is because the stressors that cause PTSD are usually unexpected (such as a rape or a family member’s murder); however, soldiers are trained to expect and cause violence. This is where EMS comes back into the picture. While most EMS providers never have been or will be on the front lines of a war, every single EMS provider has the potential to be exposed to unexpected and unexplainable terrible accidents and events. Worse, there is no warning for when these events might occur, and scant training on how to manage the emotional stress of responding to such an event.
a violent vehicle accident, an assault with a deadly weapon, an attack on a provider or an ambulance accident. In recent years, PTSD has developed in individuals experiencing short-term major events, such as a severe flood, fire, earthquake or tornado, and also events such as assault, abuse, rape and major personal injury.4

The DSM-IV lists a wide variety of symptoms. Symptoms can appear immediately following the event, but also may not surface for years. The potential for a delay in presentation makes sense when the variety of events that can cause PTSD to occur are considered. After a stressor has occurred, four broad categories of symptoms may develop reflecting the disease: diminished responsiveness, dissociative states, aggression changes and persistent increased arousal. An individual with diminished responsiveness, or psychic numbing, may begin to demonstrate this shortly after the event has occurred, and will appear detached socially. Overly subdued compared to their normal behavior, they may become disinterested in activities normally well enjoyed, or may demonstrate a lost ability to be intimate or close to loved ones. While rare, dissociative states occur when a patient behaves as if the event is occurring once again and can last from seconds to days. In comparison to burnout, these symptoms may appear quite similar to emotional exhaustion.

On the other side of the spectrum for these more depressed states are those patients who become aggressive or appear persistently aroused. These patients may develop insomnia, become hypervigilant, have an increased startle response (e.g., to anything sounding like a gunshot, such as a popping paper bag), and typically have difficulty concentrating and completing even simple tasks. Commonly, victims of PTSD have some sort of aggression change. These aggressive changes range from mild (e.g., increased irritability) to severe (acts of violence). The latter is especially common among war veterans, where their fear becomes pervasive and often leads to unpredictable explosions of anger.5

A multitude of associated signs and symptoms, and related diseases, can coexist with PTSD, and according to the DSM-IV should be considered additional.
These other disorders range from anxiety and depression to substance abuse, as well as becoming completely impaired by, or afraid of, nearly every aspect of one’s life. Patients may also have very mild experiences and only complain of a decreased sensation of emotions and loss of the ability to express themselves. These quite dramatic differences in symptoms may appear extremely vague and broad; however, understanding them is necessary before beginning to evaluate someone.

Patients are diagnosed with PTSD when they:
1) have experienced an extreme stressor;
2) reexperience the event in some way;
3) demonstrate an avoidance of stimuli or have a decreased general responsiveness;
4) have some sort of persistent arousal; and
5) these symptoms persist for at least 6 months.

Relating PTSD to EMS

We’ve known for years that EMS providers are at high risk for developing PTSD. Unfortunately, next to nothing has been done about it.

A 1997 study of New York City EMS providers discovered 9.3% had all of the clinical DSM-III criteria for PTSD, while another 10% met the criteria, though symptoms had not yet persisted for 30 days. That means nearly 20% of the EMS workforce experienced PTSD.

“Work-Related Stress and Posttraumatic Stress in Emergency Medical Services” was released in spring 2012 and looked for evidence of post-traumatic stress in EMS workers, while also trying to identify specific stressors. By surveying more than 1,600 EMTs and paramedics, the author sought to identify organizational and operational stress, critical incident stress, and excessive alcohol use. This survey discovered 100% of respondents reported exposure to traumatic events and there was a strong link between high levels of chronic and critical incident stress and PTSD and alcohol use.

For EMS providers, chronic stress is considered the “relatively enduring problems, conflicts and threats that many people face in their daily lives.” Chronic EMS stress is associated with:
- Conflict with supervisors.
- Lack of support.
- A competitive environment.
- Low pay.

Chronic stress is exacerbated by long work hours and lack of sleep. Studies demonstrated many providers work in excess of 50 hours per week and 72% of EMS providers are poor sleepers. In contrast to chronic stress, critical incident stress is associated with patient care and is defined as “any situation faced by emergency services personnel that causes them to experience unusually strong emotional reactions, which have the potential to interfere with their ability to function...”
The #1 book designed to teach you how to care for patients, people and providers in EMS is bigger and better than ever!

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either at the scene or later."9

EMS workers are also prone to exposure to personally disturbing incidents (PDIs). PDIs are events sufficiently disturbing that they overwhelm and/or threaten an individual’s normal coping methods and are known to trigger PTSD.10 Research by Mark Holland, PhD, found 29% of surveyed EMS providers had symptoms of traumatic stress disorders. Other research has demonstrated EMSs underreport symp-
toms of distress, suggesting PTSD may be more prevalent than studies have shown.9 This is supported by research done on the Chicago Fire Department, which found while the national average for suicides

![Symptoms of PTSD](https://www.emsworld.com/images/2012/10/ptsd-symptoms.jpg)

Reliving the Event
- Flashbacks
- Upsetting memories
- Nightmares
- Uncomfortable reactions to similar situations
- Remembering key aspects of the event

Avoidance
- Emotional numbing
- Detached feelings
- Loss of interest in normal activities
- Failure to show moods
- Avoiding locations similar to the event
- Hopelessness

Arousal
- Difficulty concentrating
- Easily startled
- Exaggerated response to being startled
- Hypervigilance
- Irritability
- Difficulty sleeping

was 11 per 100,000, the CFD suicide rate was 250 per 100,000.2

While there are many risk factors for PTSD in the general population, five risk factors specific to EMS workers have been identified by researchers:

1) separation or divorce;
2) graduation from a rural high school (especially young presenters—those who develop symptoms at age 24 or younger);
3) previous EMS experience;
4) previous emergency work leading them into EMS; or
5) previous war experience.

War experience alone increased the risk for developing PTSD by 40%; this jumps to 70% if the EMT or paramedic served in the Vietnam War. The more risk factors an individual has, the greater the risk of developing PTSD.8

Sadly, the evidence continues. A study on EMS workplace stress found 92% of EMS providers suffer emotional exhaustion, while 99% admit to having some form of depersonalization.11 Recall that deperson-

alization is a symptom of both burnout as well as PTSD. Finally, yet another study researching why providers leave EMS found 25% of the survey respondents planned to leave within 5 years.

Few other industries have such a high
turnover rate. When asked why providers were planning to leave, the most common answers were:

- The hours (11%).
- Too much job stress (13%).
- Low pay (13%).
- Negative impact on family life (16%).

Interestingly, current research has found a lack of consistency in the evidence that increased shift length is associated with increased fatigue and worsened patient outcomes. There is also an associated decrease in fatigue and increased performance when individuals are allowed a 40 minute–2 hour nap period within shifts at or exceeding 12 hours.

Coping

Finding coping strategies that work is essential for all EMS providers. The very nature of EMS places providers on the front line of personally disturbing experiences on a daily basis. When a partner says a particular call "doesn’t bother me," red flags should start waving. We’re all human and have emotions. Work together to identify coping mechanisms that work. One of the most beneficial coping strategies is simply discussing the call with coworkers; unfortunately, male providers are less likely to do this than female providers.

When selecting a strategy to deal with stress keep in mind there are both constructive and destructive coping mechanisms. Constructive coping mechanisms improve emotional health while destructive mechanisms can actually worsen a mental health condition. Further, some coping strategies produce negative behaviors and can be suggestive of more long-term mental health issues, including PTSD. For example, alcohol consumption is well known as a destructive coping mechanism, yet over 50% of providers have reported using alcohol to cope with stress. Table 1 identifies some very helpful coping strategies EMS providers have found helpful, as well as some that may seem helpful in the moment but are ultimately destructive.

Table 1 provides two insights. First, it identifies some very helpful coping strategies, including talking with colleagues, having adequate time off duty with family and friends, and use of available mental health services. Second, it’s slightly disturbing to see many providers feel black humor (e.g., jokes about otherwise unfunny situations) is beneficial for coping, and more concerning that over half of providers utilize destructive coping skills, such as consuming alcohol. It’s not known why some individuals feel black humor is constructive, but it is apparent most of us do it during times of stress.

One effective strategy for helping providers is for agencies to collaborate with mental health workers on developing a stressor and coping survey. Requiring all providers within an agency to complete the survey periodically, and supplying each...
provider with a confidential written report, presents providers with an individualized explanation of the types of events that cause the provider stress, while also identifying the most effective coping strategies for the provider.

Consider working with your department’s leadership to contact a mental health program to design such a survey for you. Individual results do not need to be shared with department leadership but they may help someone struggling with emotional stress to recognize their own situation and seek out coping strategies that may prove beneficial.

Other EMS services encourage mental health days. For example, a program may schedule a mandatory paid day off for providers once every three or four months. This day off is often tied to the beginning or end of an off period to provide the provider extra rest. Alternatively, this mental health day may be provided in the middle of a long stretch of work in order to give a provider a break.

Other excellent coping mechanisms that work well for people are exercise, diet changes and meditation. Exercising regularly, be it rigorous training for an Ironman triathlon, walking a mile every day or anything in between, provides a break, allowing both the body and mind to relax and decompress. Working in EMS can often be detrimental to healthy diets. Taking time to cook a healthy meal each

<table>
<thead>
<tr>
<th>Table 1: Coping Strategies as Reported by EMS Providers</th>
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<tbody>
<tr>
<td><strong>Constructive Coping Strategies</strong></td>
</tr>
<tr>
<td>• Talking with colleagues</td>
</tr>
<tr>
<td>• Thinking about positive benefits of work</td>
</tr>
<tr>
<td>• Focusing on outside interests</td>
</tr>
<tr>
<td>• Thinking about own family</td>
</tr>
<tr>
<td>• Looking forward to off-duty time</td>
</tr>
<tr>
<td>• “Black,” or dark humor</td>
</tr>
<tr>
<td>• Using available mental health services</td>
</tr>
<tr>
<td>• Talking with spouse/significant other</td>
</tr>
<tr>
<td><strong>Destructive Coping Strategies</strong></td>
</tr>
<tr>
<td>• Keeping thoughts/feelings to oneself</td>
</tr>
<tr>
<td>• Avoiding conversation about calls</td>
</tr>
<tr>
<td>• Picking and choosing calls</td>
</tr>
<tr>
<td>• Reducing workload to bare minimum required</td>
</tr>
<tr>
<td>• Consuming alcohol</td>
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<tr>
<td>• Engaging in risky behaviors</td>
</tr>
</tbody>
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day helps ensure the body and brain receive the energy and nutrients needed to rest and recover from long days. Finally, many people report mental health benefits from meditation.

Be wary of destructive coping methods, such as escape/avoidance, distancing, confrontation, taking responsibility when it’s not appropriate, and forcing self-control when what’s needed is an emotional release. Coping via avoidance does not address the problem at hand and may use wishful thinking to convince oneself the problem does not exist. When coping by distancing, the significance of the stressful event is diminished and downplayed. Direct confrontation is rarely effective, as it employs aggression toward others and may include risky behaviors. Taking responsibility can be considered a poor coping strategy if it is misplaced. For example, imagine a new paramedic treats a child with status asthmaticus, who goes into respiratory arrest and dies despite aggressive care. This paramedic may accept responsibility by saying it was his fault the child died. He is accepting responsibility for the death when in reality it was unavoidable. Finally, self-control coping strategies attempt to normalize the emotions an individual is feeling, rather than accepting and addressing them.

The use of detrimental coping strategies leads to an increase of traumatic stress symptoms. Unfortunately, these detrimental strategies are woven deep into the EMS culture. EMTs and paramedics are supposed to be tough, letting emotions “roll off their back.” Exposing young and developing providers to this mentality only puts them at heightened risk for developing mental health problems such as PTSD, and doesn’t set anyone up for success. Help prevent this by encouraging classroom instructors to set aside time for dealing with provider mental health and encouraging departmental and system training officers to front-load mental health resources to newly hired staff. Remember, it’s OK to ask for, or offer, help in dealing with stressful and traumatizing events.

Summary

Burnout and PTSD are closely linked and often underreported in EMS. EMS classrooms do little or nothing to prepare providers for the inherent emotional stresses of emergency response and the “thick skin” culture of EMS may make many providers apprehensive about sharing their

“EMS workers are at the greatest risk for developing PTSD when they have between 7 and 10 years of experience.”
true feelings. Burnout is triggered by many of the same stresses that lead to the symptoms of PTSD and providers experiencing burnout that doesn’t resolve within a few weeks may actually be experiencing PTSD.

Be mindful of yourself and your fellow coworkers, particularly after a very traumatic response. And remember traumatic responses don’t need to be as dramatic as Sept. 11, New Orleans after Hurricane Katrina or the Aurora, CO shootings to bother an EMS worker. In contrast, these are the calls where providers often receive the most attention. Instead, watch for the new father who just performed CPR on an infant the same age as his own, or the provider who just watched his or her friend die following a motor vehicle collision. Pay attention to yourself and colleagues, and be responsible and honest with yourself and others about when coping strategies are enough, and when they aren’t. Finally, don’t ever be afraid to seek help.

REFERENCES

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