

# STRESS AND COMBAT PERFORMANCE





Adapted from FM 22-51: *Leaders' Manual for Combat Stress Control*, Chapter 2.

# STRESS AND COMBAT PERFORMANCE



## Introduction

Research and experience have refined our understanding of the stress process leaving some terms obsolete. This article establishes how the Army's combat stress control concept currently defines and interprets stress terminology.

## Understanding of Interactions

### ***Stressors***

A stressor is any event or situation that requires a nonroutine change in adaptation or behavior. Often it is unfamiliar or creates conflict among motives within the individual. It may pose a challenge or a threat to the individual's well-being or self-esteem. Stressors may be positive or negative (for example, promotion to new responsibilities or threat of imminent death).

### ***Combat Stressors***

Combat stressors are any stressors occurring during the course of combat-related duties, whether due to enemy action or other sources. Combat duties do not necessarily involve being shot at and may be carried on even in "safe" areas far from the enemy. Many stressors in combat duties come from the soldier's own unit, leaders, and mission demands. They may also come from the conflict between mission demands and the soldier's home life.

## ***Stress***

Stress is the internal process of preparing to deal with a stressor. Stress involves the physiological reflexes that ready the body for fight or flight. Examples of those reflexes are increased nervous system arousal, release of adrenaline into the bloodstream, changes in blood flow to different parts of the body, and so forth. However, stress is not synonymous with arousal or anxiety. Stress involves physical and mental processes, which at times suppress arousal and anxiety. Stress also involves the accompanying emotional responses and the automatic perceptual and cognitive processes for evaluating the uncertainty or threat. These automatic processes may be instinctive or learned.



## ***Stress Appraisal***

Stress may or may not involve conscious awareness of the threat, but the stressor must be perceived at some level to cause stress. The amount of stress experienced depends much on the individual's appraisal of the stressor and its context, even if that appraisal is wrong. The stress process includes psychological defenses, which may filter the perception and appraisal to shield the individual from perceiving more threat than he is ready to tolerate.

## ***Physical Stressors Versus Mental Stressors***

A distinction can be made between those stressors that are physical and those which are mental.

- ⇒ A physical stressor is one that has a direct effect on the body. This may be an external environmental condition or the internal physical/physiologic demands of the human body.
- ⇒ A mental stressor is one in which only information reaches the brain with no direct physical impact on the body. This information may place demands on either the cognitive systems (thought processes) or the emotional system (feeling responses, such as anger or fear) in the brain. Often, reactions are evoked from both the cognitive and the emotional systems.

## ***Stress Behaviors***

These are stress related actions that can be observed by others; for example, moving or keeping still, speaking or not speaking. The behaviors may be intended to overcome and turn off a stressor, to escape it, or to adapt to it. They may simply reflect or relieve the tension generated by the internal stress process. Any of these different types of stress behavior may be successful, unsuccessful, or not influence the stressful situation at all. They may make the stressor worse. They may resolve one stressor but create new stressors.

## ***Combat Stress***

This is the complex and constantly changing result of all the stressors and stress processes inside the soldier as he performs the combat-related mission. At any given time in each soldier, stress is the result of the complex interaction of many mental and physical stressors.

# **Discussion of Physical Versus Mental Stressors**

Table 1-1 gives examples of the two types of physical stressors (environmental and physiological) and the two types of mental stressors (cognitive and emotional).

The physical stressors evoke specific stress reflexes. For example, cold causes shivering and decreased blood flow to skin and extremities, while heat causes sweating and increased blood flow to skin. These stress reflexes can maintain internal balance and comfort up to a point but then may be exceeded.

The distinction, however, between physical and mental stressors is rarely clear cut.

- ◆ Mental stressors can also produce the same stress reflexes as do some physical stressors; for example, decreased blood flow to skin, increased sweating, adrenaline release, and pupil size. These reflexes can markedly increase or decrease the individual's vulnerability to specific physical stressors. The mental stressors also presumably cause changes in brain chemistry (involving the neurotransmitter chemicals in the brain).
- ◆ Physical stressors are also mental stressors when they provide information to the brain that creates a mental demand or poses a threat to well-being. Even if a physical stressor is not a threat to life and health, the discomfort, distraction, and performance degradation it causes may be emotionally upsetting. Therefore, physical stressors, too, can produce the nonspecific arousal reflexes. Heat, cold, dehydration, toxic

chemicals, and other physical stressors can also interfere directly with brain functioning; they can impair perceptual and cognitive mental abilities, thus increasing the stresses. Light, noise, discomfort, and anxiety provoking information may interfere with sleep, which is essential to maintain brain efficiency and mental performance over time.

Because of this intermeshing of physical and mental stressors and stress reflexes, no great effort needs to be invested in distinguishing them in military contexts until the physical stressors and stress reflexes become so severe that they warrant specific (and

Table 1-1. Types of Physical and Mental Stressors

<b>Physical Stressors</b>	<b>Mental Stressors</b>
<p><b>ENVIRONMENTAL</b></p> <ol style="list-style-type: none"> <li>1. Heat, cold, or wetness</li> <li>2. Vibration, noise, or blast</li> <li>3. Hypoxia (insufficient oxygen), fumes, or poisons</li> <li>4. Chemicals</li> <li>5. Directed-energy weapons/devices</li> <li>6. Ionizing radiation</li> <li>7. Infectious agents/diseases, skin irritants or corrosives, or physical work</li> <li>8. Bright light, darkness, haze, and obscuration</li> <li>9. Difficult or arduous terrain</li> </ol>	<p><b>COGNITIVE</b></p> <ol style="list-style-type: none"> <li>1. Information: too much or too little sensory overload versus deprivation, ambiguity, uncertainty, isolation time, pressure versus waiting</li> <li>2. Unpredictability</li> <li>3. Rules of engagement or difficult judgments</li> <li>4. Organizational dynamics</li> <li>5. Hard choices versus no choices</li> <li>6. Recognition of impaired functioning</li> </ol>
<p><b>Physiological</b></p> <ol style="list-style-type: none"> <li>1. Sleep deprivation</li> <li>2. Dehydration</li> <li>3. Malnutrition and poor hygiene</li> <li>4. Muscular and aerobic fatigue</li> <li>5. Impaired immune system</li> <li>6. Overuse or underuse of muscles or organ systems</li> <li>7. Illness or injury</li> </ol>	<p><b>Emotional</b></p> <ol style="list-style-type: none"> <li>1. Fear- and anxiety-producing threats (of injury, disease, pain, failure, loss, personal or mission failure)</li> <li>2. Grief-producing losses (bereavement)</li> <li>3. Resentment, anger- and rage-producing</li> <li>4. Frustration, threat, loss, and guilt</li> <li>5. Boredom-producing inactivity</li> <li>6. Conflicting motives (worries about home, divided loyalties)</li> <li>7. Spiritual confrontation or</li> </ol>

	temptation causing 8. Loss of faith 9. Interpersonal feelings
Note: The above stressors may act singly or interact with each other to be combat stressors.	

perhaps emergency) protective measures and treatment. Prior to that stage, unit leaders and medical and mental health personnel should assume that both physical and mental stresses are usually present and interacting within all unit personnel. Guidelines for controlling both physical and mental stressors at the same time should be contained in the tactical standing operating procedure (TSOP), if possible.

## Positive Stress

Stress is not necessarily bad or harmful. Positive stress (or eustress) is that degree of stress that is necessary to sustain and improve tolerance to stress without overdoing the stress experience. Some level of stress is helpful and even necessary to health. This is especially clear for some physical stressors to which the body can acclimatize. To achieve greater tolerance or acclimatization to a physical stressor, a progressively greater exposure is required. This exposure should be sufficient to produce more than the routine stress reflexes. Well-known examples of acclimatization are heat acclimatization, cardiovascular (aerobic) fitness, and muscle strength. These examples are so important to combat stress control that they are worth reviewing. The process of improving tolerance to stressors through progressive exposure to those stressors will also be true of cognitive-emotional stressors.

### ***Heat acclimatization***

You cannot become fully acclimatized to heat by just lying around in hot conditions. You have to perform physical exercise in the heat to stress the body's temperature regulation system. At first, the body may overreact with excessive sweating and heart rate. As acclimatization occurs, the body becomes more efficient at cooling itself. However, acclimation has a maximum level. If you stop exercising in the heat, you will gradually lose the acclimatization you have gained. Mission-oriented protective posture (MOPP) training should be considered as a part of the acclimatization program.



### ***Aerobic fitness***

It is well known that you can become aerobically fit only by exerting yourself to progressively greater degrees of physical effort. One way is to enter into 20-minute (or more) exercise programs of jogging, running, bicycling, swimming, or special aerobic exercises each day. Any physical effort that sufficiently raises heart rate and respiratory rate and works up a sweat for 20 minutes or more will increase your tolerance. In other words, you must stress the system. After doing that for several days, the same effort

raises heart rate and sweating only a little. You become less short of breath, and the effort seems much easier. To become more aerobically fit, you have to increase the work stressor even more until the body again shows the stress of increased heart rate, shortness of breath, and sweating. If you stop exercising aerobically for weeks or months, your improved aerobic fitness will gradually be lost.

## ***Muscle strength***

Bodybuilders increase their muscle mass by lifting progressively heavier weights or working against progressively greater resistance on exercise machines. In order to increase muscle strength, you have to increase the stressor (the weight lifted) and the stress (the physiological increased effort within the muscle cells). After the muscle has become accustomed to lifting a given weight, it no longer seems like a great effort. There is little stress taking place in the muscle. The muscle will merely maintain its strength and not get any stronger with repeated exposure. If you stop doing even that amount of lifting, your muscles will get flabby again over time. A good maxim is, "If you do not use it, you will lose it."

It is important to understand that stressors that overstrain the adaptive capability of the body (whether or not they cause pain) do not hasten acclimatization or increase tolerance to the stressor. They often retard it and may even permanently impair future acclimatization. Consider the examples of the physical stressors discussed above.

Heat acclimatization is not speeded by getting heat cramps or heat exhaustion. Neither is it significantly slowed, although the person's self-confidence and motivation to try again may be impaired. However, people who are driven to the stage of heatstroke and survive will forever be physically less tolerant to heat. They will be more likely to develop heatstroke in the future if exposed to heat.

Runners or body builders who push too hard early in training may not feel severe pain at the time. Hours later, however, they may develop muscle swelling, ache, and stiffness. At best, this will take days to recover to the point where the athlete can even continue with the exercise regimen. At worst, the damaged muscles may break down and release the substance myoglobin into the bloodstream that can permanently damage or destroy the kidneys. Excessive painful stress on bones, joints, and ligaments does not make them grow stronger but instead causes stress fractures, sprains, tears, and other damage that may require months of reduced activity to heal.

## ***Master Fitness Trainers***

The issue for the master fitness trainers is how to keep the physical work stressors and stress in the positive or eustress range, which increases strength and fitness. They must control the stressors and stress so they are not extreme-too little or too much.



Unconditioned, unacclimatized troops should not be overextended in training as this could cause severe injury or even death. A special physical training program will be required.

## ***Cognitive and Emotional Stressors***

Positive stress also applies to mental stressors (cognitive and emotional), as well as to physical stressors (environmental and physiological). Appropriate exposure to mental or emotional stressors is necessary to increase tolerance to them.

### ***Building Self-Confidence***

Armies have known for centuries about the positive effects of stress in preparing soldiers for combat. In old-style basic training (prior to 1970), the Drill Sergeant deliberately made himself more fearsome than death itself so that the trainee would learn to respond automatically, even in a state of terror. That technique is not useful today, because modern war requires more small unit cohesion, trust between leaders and those led, and initiative even on the part of the junior enlisted soldier. The modern Drill Sergeant must, instead, require the trainees to meet difficult (stressful) standards and work with the trainees to assure that they master them. The result is a well-earned sense of confidence in self, comrades, and leaders that can be applied to future demands.

### ***Mastering Fear***

The Army knows that airborne and air assault training are not just intended to teach the skills needed to arrive on a battlefield after jumping from a low-flying aircraft or repelling from a helicopter. Their greater value comes from requiring soldiers to confront and master their extremely strong, instinctive fear of heights under circumstances that are deliberately stressful at the time. During training, this fear builds self-confidence and a sense of special identity on completion. (In fact, the training itself is not exceedingly dangerous, statistically speaking. However, the possibility of death does exist if you are extremely unlucky or fail to do the task correctly. This can contribute to additional stress.)

### **Teaching Stress Control**

Ranger school is a clear example of the Army's recognition of the benefits of positive stress. A generic ranger course objective would read: Perform complex and difficult physical and mental tasks under great pressure, sleep loss, water and food deprivation, and physical fatigue. No one coasts through ranger school. If anyone seems to be coasting through, the trained ranger cadre will increase the demand on that person until he, too, reaches the stage of stress where he realizes he cannot get through it all alone. Ranger school teaches small teams and their rotating leaders how to control stress in all the team members so the team accomplishes the mission. The training gives the individual soldier confidence, but even more, an awareness of how stress works in oneself and others. It teaches stress control, not stress reduction. Often the need for the team and its individual members is to play different mental and physical stressors against each other. This is done by increasing some stressors while decreasing others to keep the team on its mission and to keep individual soldiers from giving up.

To some degree, acclimatization to mental (cognitive/emotional) stressors also shares that "use it or lose it" feature which is true for adaptation to physical stressors. The airborne qualified trooper may experience more unpleasant stress symptoms when jumping after not having jumped for many months. The physician may find the stress unexpectedly higher when performing a potentially risky patient-care procedure that has not been performed for some time and was once so frequently practiced that it had seemed to involve no stress at all. However, the memory of successfully mastering the stressor in the past usually speeds up the return of adaptation.

### **Overstrain and Preventive Measures**

Tolerance to mental stressors is increased by successfully facing and mastering similar stressors (just as tolerance to physical stressors is). However, being overwhelmed by emotional or mental stress may temporarily or permanently impair future tolerance (just as exceeding the ability to cope with physical stressors may). Up to a point, mental stress (even uncomfortable mental stress) may increase tolerance to future stress without any current impairment. A higher level may cause temporary overstrain but may heal as strong as or stronger than ever with rest and restorative processing. More severe overstrain, however, may permanently weaken tolerance to future mental stress. As with some cases of damage from physical stress, the harm done by mental stress may not be apparent at the time. It may only be apparent later. There is reason to believe that immediate preventive measures or treatment can greatly reduce the potential for chronic disability, even in cases of extreme emotional overstrain.

## **Relationship of Stress to Task Performance**

Stress is an internal process that presumably evolves because it helps the individual to function better, stay alive, and cope successfully with stressors. However, there is an optimal range of arousal (or motivation or stress) for any given task.

### **Too Little Arousal**

If there is too little arousal, the job is done haphazardly or not at all, because the individual is easily distracted, makes errors of omission, or falls asleep. If arousal becomes too intense, the individual may be too distractible or too focused on one aspect of the task. He may have difficulty with fine motor coordination and with discriminating when and how to act. If the individual is unfamiliar with his own stress reflexes and perceives them as dangerous (or incapacitating, or as a threat to self-esteem), the stress itself can become a stressor and magnify itself.

### **Extreme Arousal**

With extreme arousal, the individual may freeze (become immobile or petrified by fear). Alternately, he may become agitated and flee in disoriented panic. If stress persists too long, it can cause physical and mental illnesses. Extreme stress with hopelessness can even result in rapid death, either due to sympathetic nervous system over stimulation (such as stroke or heart attack) or due to sympathetic nervous system shutdown (not simply exhaustion). An individual giving up can literally stop the heart from beating.

### **Fine Tuning Arousal**

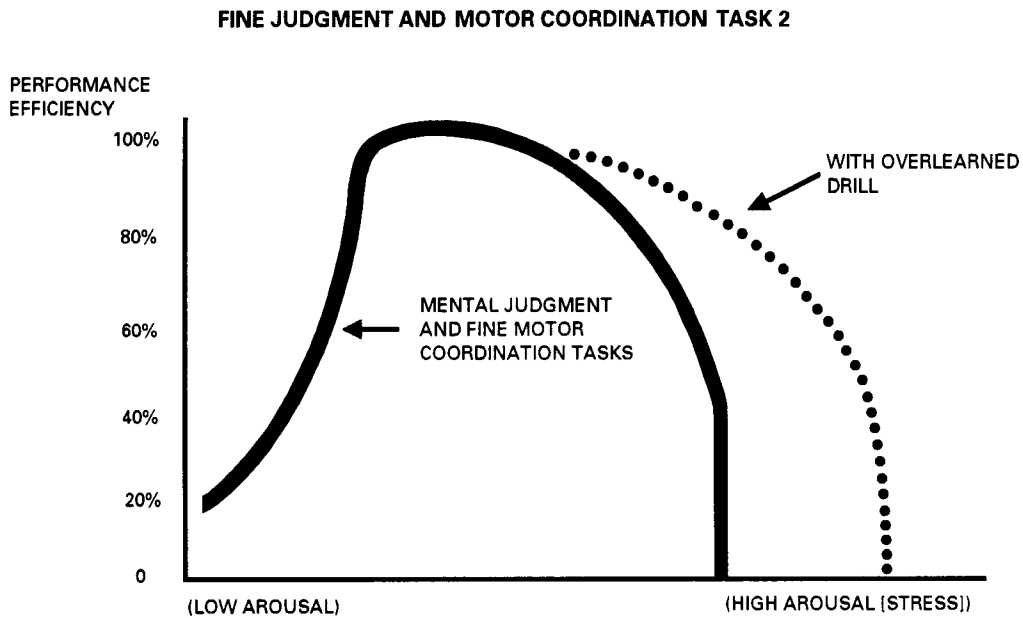
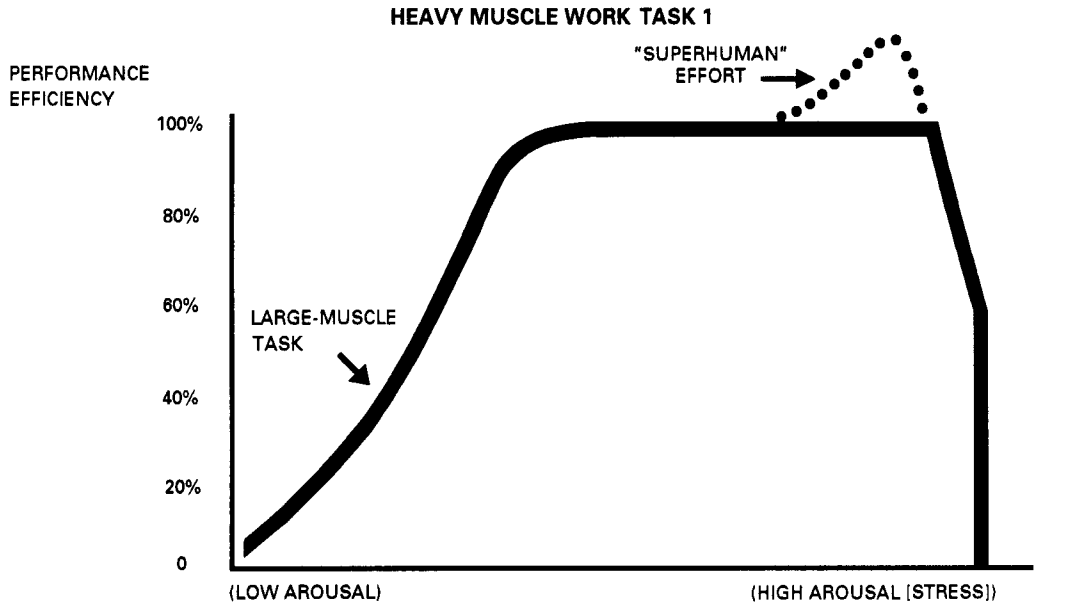
The original purpose of the stress reaction was to keep the person alive. The military requirement for the stress process is different. It is to keep the soldier in that range of physiological, emotional, and cognitive mobilization that best enables him to accomplish the military mission, whether that contributes to individual survival or not. This optimal range of stress differs from task to task. Tasks that require heavy but gross muscular exertion are performed best at high levels of arousal (Figure 1). Tasks that require fine muscle coordination and clear thinking (such as walking point on a booby-trapped jungle trail, or distinguishing subtle differences between friendly and enemy targets in a night-vision gun sight) or that require inhibiting action (such as waiting alertly in ambush) will be disrupted unless the stress process is kept finely tuned. If the stress process allows too much or too little arousal or if arousal does not lessen when it is no longer needed, stress has become harmful.

## **Fatigue**

***Definition***

Fatigue means weariness and/or decreased performance capability due to hard or prolonged work or effort. It reflects the stage where the energy mobilized by the stress process is beginning to run down. If the effort continues, the fatigue can build to the point of exhaustion.

**Figure 1. Change in performance with increasing arousal (stress) for two types of tasks**



Both physical and mental tasks can produce fatigue. A well-known example of physical fatigue is muscle tiredness. This can be limited to specific muscles that have been overworked. Another example is aerobic fatigue (where the whole body is short of oxygen and perhaps blood sugar, is probably overheated, and wants to rest).

## ***Sleep Deprivation***

Sleep loss produces a different kind of fatigue that is primarily mental. The sleep deprived person has trouble keeping his mind focused although he has no decrease in muscular or aerobic work capacity. People with sleep-loss fatigue usually appear tired and slowed down, or they may also be speeded up, hyperactive, and irritable.

## ***Mental Fatigue***

Continued mental effort on a specific task, whether it is a task requiring much thinking or constant attention, produces mental fatigue. That is, performance gets progressively worse with time, and the person wishes he could stop to do something else. Even a few minutes of break, while the mind does some quite different mental tasks, substantially relieves the mental fatigue and improves the performance.

## ***Illness***

Physical illness can also bring on fatigue. People who have ever had the flu or even just a cold know how quickly one tires. They only want to rest or sleep.

## ***Emotions***

Intense emotions also produce fatigue. This is especially true of anxiety and fear because they arouse the fight or flight reflexes of the physical stress process. This will be discussed later in justifying the use of the term *battle fatigue*.

The level of fatigue experienced may be influenced by--

- Work intensity.
- Task difficulty.
- Duration of sustained effort.
- General well-being of the individual.

## ***Preparation***

Fatigue can also be influenced by the level of preparedness to perform the specific task.

### **Physical fatigue**

A marathon runner may have strong legs, superb aerobic fitness, great health, and self-confidence, but too little arm and shoulder strength to be able to chin himself even once before being stopped by fatigue.

### **For emotional fatigue**

A healthy, confident soldier may have learned to carry his Dragon missile and guide it to its target easily in peacetime training. But if he has never learned to control his own fear, he may find himself too quickly fatigued to even carry the weight, let alone keep the missile on target for 10 seconds while under real, lethal enemy fire. He may, however, still be able to perform simple tasks. In WWII, the following observations and conclusion were made:

### **Two Examples**

1. In the fighting for Kwajalein Atoll, troops were halted three times by enemy fire. Their energy was exhausted even though they suffered no casualties and had moved fewer than two miles. In the Normandy invasion, a strong infantry company with many vigorous young men hit the beach still fresh. Under intense fire, they found they had to drag their heavy machine guns across the beach a few feet at a time; when in training, they had been able to carry the same loads on the run.

2. The Army reached the following conclusion from these observations: Fear and fatigue affect the body in similar ways. Fear, like physical work, drains the body of energy. This creates a self-perpetuating cycle. The overloaded soldier, feeling tired, becomes more susceptible to fear. The more fearful he becomes, the weaker he feels, and the more quickly he becomes fatigued.

## **Stages of Adaptation to a Threatening Situation**

### ***Alarm***

The stage of alarm (usually brief) is when the fight or flight response is extremely active. Performance is likely to be impaired unless the soldiers' responses are simple and instinctive (like running or freezing) or well drilled.

## ***Resistance***

The stage of resistance is achieved if the subject successfully copes with the threat. The over arousal moderates and the sufferer begins to actively try to overcome or escape the stressor or to adapt to it. Performance is often enhanced in the stage of resistance. If the stressor is mastered or adapted to, the person either returns to the baseline level of stress or may have some residual stress while working through the unpleasant memories and their long-term implications.

## ***Exhaustion***

The stages of exhaustion may occur if the victim of stress is unable to escape, overcome, or tolerate a severe stressor. Performance deteriorates and may cease altogether. The victim may develop a stress-related illness and can even die of stress.

# **COMBAT PERFORMANCE AND COMBAT STRESS BEHAVIORS**

## **Phases of Adaptation to Combat**

During the first time in battle for soldiers, their combat performance is usually lower than it was in precombat training. The novice soldiers are also at relatively high risk of being killed or wounded. This is partly because they have not yet learned to identify and respond automatically to the true dangers (such as the specific sounds of incoming artillery or mortar rounds). Under extreme stress, they may experience difficulty with focusing their attention and remembering what they were taught in training. Their ineffectiveness may also be caused by fear induced fatigue. First-battle soldiers are at high risk of becoming battle fatigue casualties. Soldiers in their first time under fire are likely to experience high anxiety (the stages of alarm; see Figure 2[A]). Poor showing on first exposure to real battle can be reduced by providing tough, realistic training (especially battle drills under high stress), but it cannot be totally prevented.

## ***The Experienced Veteran***

If the soldier does not become a casualty in the first battle, his combat skills will improve quickly over the next few days. His skills continue to improve gradually over the next weeks until he is as good as he can get. An experienced soldier gains confidence in his skill, comrades, and leaders (see Figure 2[B]). For him, the stage of alarm is mostly in anticipation. He responds selectively and automatically to the truly dangerous

sounds and cues of the battlefield. When the action starts, he immediately achieves the stage of resistance and is remarkably calm as he focuses on his job. However, the veteran is likely to have a considerable rebound of arousal and anxiety when the fight is over. Not all veteran soldiers ever achieve the state of really low fear in action. Some drop to mid levels, yet still perform their duties effectively.

### ***Sustainment of Optimal Combat Skills***

Combat skills and high stress tolerance are maintained when frequent successful combat actions occur. If losses in the unit remain low, the veteran can maintain his optimal combat skills for many months. If there is a prolonged cease-fire or if the skilled soldier leaves the combat zone on individual R&R, there may be a brief drop in performance on his return to battle. That drop would be accompanied by a return of the anxiety pattern shown by new soldiers (Figure 2[A]) but the anxiety is much briefer. This would be similar to the anxiety felt by the airborne qualified soldier who is making a jump after not having done so for many months. Predictably, the experienced veteran will regain his combat edge quickly upon returning to battle.

### ***The Overstressed Veteran***

If the unit suffers many casualties, however, and the chance of surviving a long war seems poor, the experienced soldier's combat performance begins to decline. It can occur after 14 to 21 days of cumulative combat or even after only a few days of extremely heavy losses. The overstressed veteran becomes more careful, loses initiative, and may be indecisive when he needs to act quickly. Figure 2(C) shows the anxiety pattern of an overstressed soldier who is doubting his chances of survival. There were too many close calls in the last battle; too many of his friends were killed (slowly over time or quickly). Under such stress, he feels his own skills are slipping, and it is just a matter of time before he, too, will surely be killed or maimed. Unless he is given the opportunity and help to reduce arousal level and regain some hope, he will soon fail.

### ***Decline of Combat Skills***

How quickly performance declines will usually be related to how many casualties have occurred and how close the soldier was to them (both physically and emotionally). The decline may be hastened or slowed by leadership, unit, scenario, and home front factors such as those discussed later in other chapters and in Appendix A of FM 22-51.

### ***Restoration of Combat Skills***

Rest and recuperation, preferably with other soldiers in the unit, can substantially restore combat proficiency. Rest would also substantially return the anxiety pattern to that of the experienced veteran (Figure 2[B(2)]). This recuperation can be accomplished

with the help of the medical and combat stress control/mental health personnel at a medical restoration or reconditioning facility.

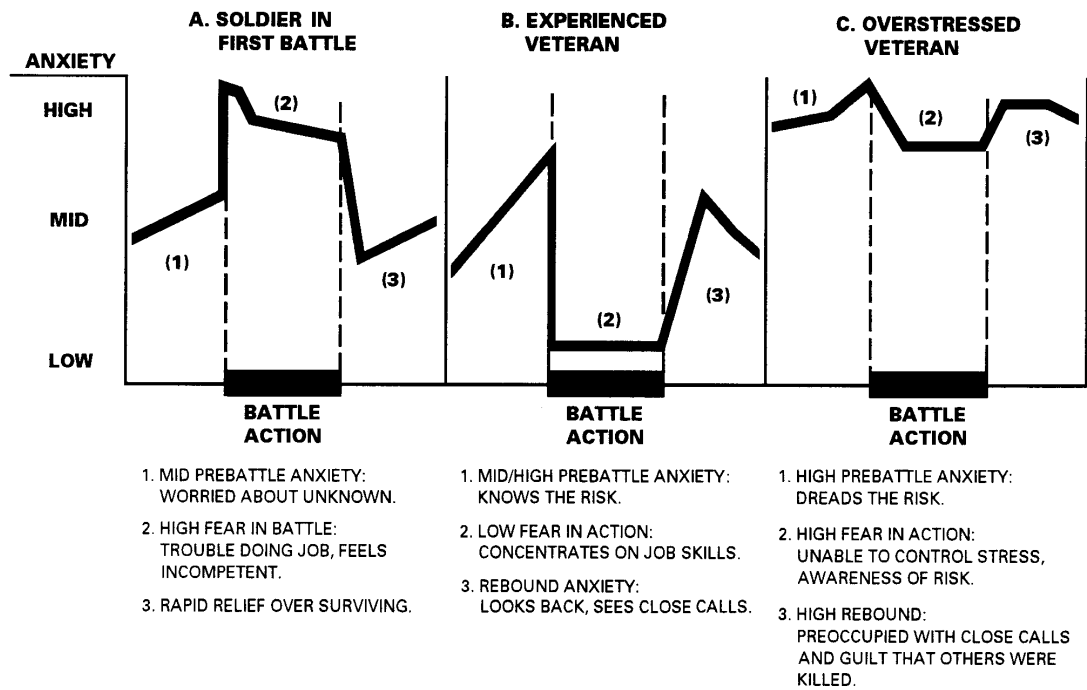


Figure 2. Anxiety, fear, and arousal at different stages in combat tour.

## Combat Stress Behaviors

### Definition

Combat stress behavior is the generic term that covers the full range of behaviors in combat, from behaviors that are highly positive to those that are totally negative. Table 2 provides a listing of positive stress responses and behaviors, plus two types of dysfunctional combat stress behaviors—those labeled misconduct stress behaviors and those labeled battle fatigue.

### Positive Combat Stress Behaviors

Positive combat stress behaviors include the heightened alertness, strength, endurance, and tolerance to discomfort which the fight or flight stress response and the stage of resistance can produce when properly in tune. Examples of positive combat stress behaviors include the strong personal bonding between combat soldiers and the pride and self-identification that they develop with the combat unit's history and mission

(unit esprit de corps). These together form unit cohesion-the binding force that keeps soldiers together and performing the mission in spite of danger and death. The ultimate positive combat stress behaviors are acts of extreme courage and action involving almost unbelievable strength. They may even involve deliberate self-sacrifice. Positive combat stress behaviors can be brought forth by sound military training (drill), wise personnel policies, and good leadership. The results are behaviors that are rewarded with praise and perhaps with medals for individual valor and/or unit citations. The positive combat stress behaviors are discussed further in Chapter 3, FM 22-51.

### Misconduct Stress Behaviors

Examples of misconduct stress behaviors are listed in the center column of Table 2. These range from minor breaches of unit orders or regulations to serious violations of the Uniform Code of Military Justice (UCMJ) and perhaps the Law of Land Warfare. As misconduct stress behaviors, they are most likely to occur in poorly trained, undisciplined soldiers. However, they can also be committed by good, even heroic, soldiers under extreme combat stress. Misconduct stress behavior can be prevented by stress control measures, but once serious misconduct has occurred, it must be punished to prevent further erosion of discipline. Combat stress, even with heroic combat performance, cannot justify criminal misconduct. See Chapter 4, FM 22-51, for a discussion of misconduct stress behaviors.

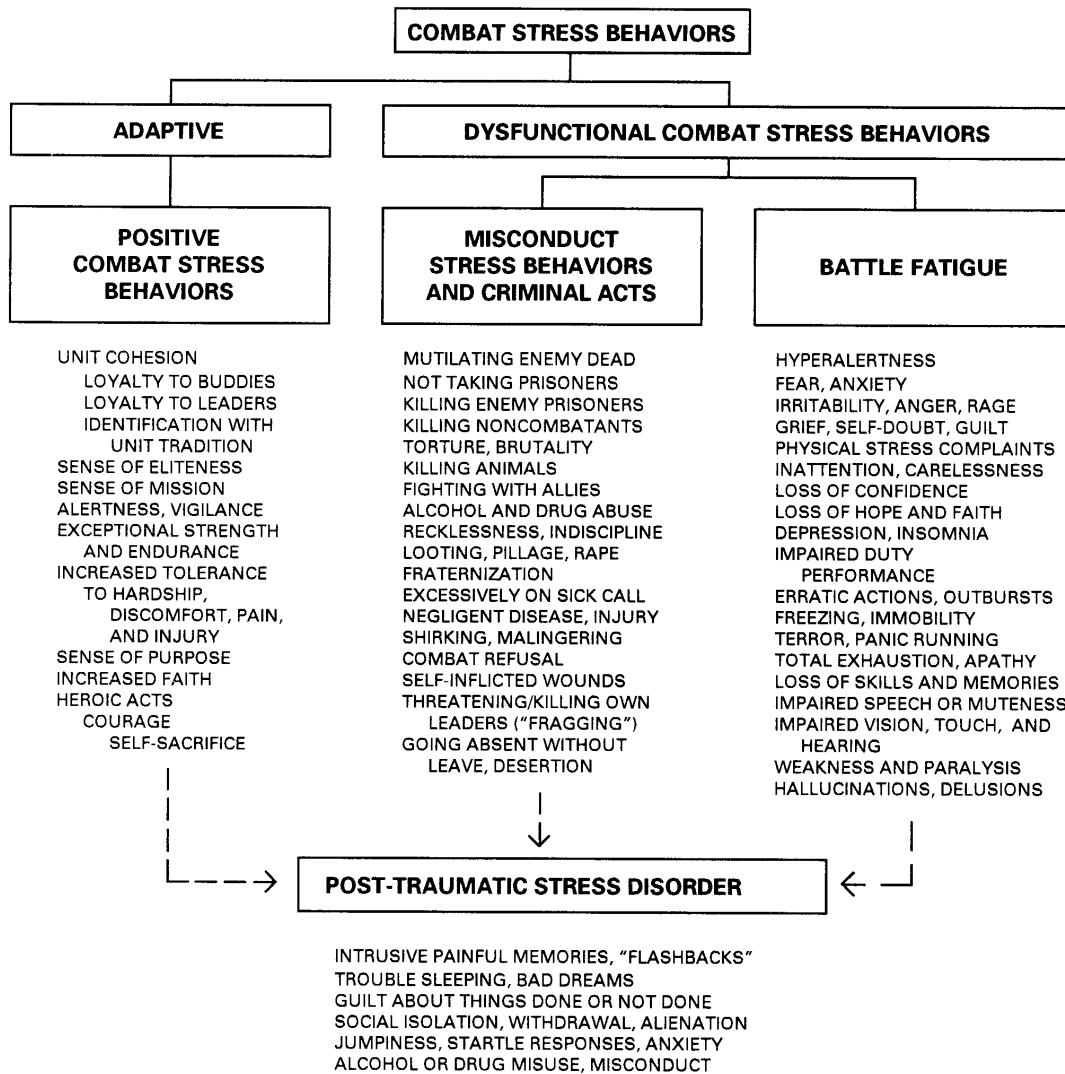
### Battle Fatigue

Battle fatigue is also called combat stress reaction or combat fatigue. See Table 2 for examples of battle fatigue. Those battle fatigue behaviors that are listed near the top may accompany excellent combat performance and are often found in heroes, too. These are normal, common signs of battle fatigue. Those that follow are listed in descending order to indicate progressively more serious or warning signs. Warning signs deserve immediate attention by the leader, medic, or buddy to prevent potential harm to the soldier, others, or the mission. Warning signs do not necessarily mean the soldier must be relieved of duty or evacuated if they respond quickly to helping actions. However, soldiers may need evaluation at medical treatment facilities to rule out



other physical or mental illness. If the symptoms of battle fatigue persist and make the soldier unable to perform duties reliably, then medical treatment facilities, such as clearing station and specialized combat stress control teams, can provide restorative treatment. At this point, the soldier is a battle fatigue casualty. For those cases, prompt treatment close to the soldier's unit provides the best potential for returning the soldier to duty. See Chapter 5, FM 22-51, for a detailed discussion of battle fatigue.

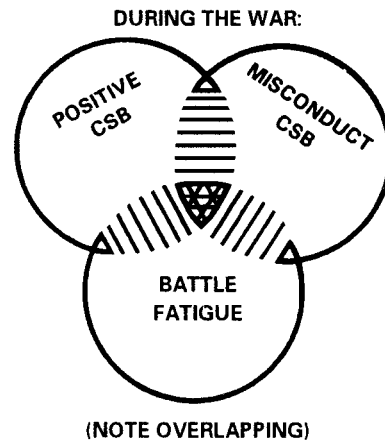
**Table 2. Combat Stress Behaviors**



## Overlapping of Combat Stress Behaviors

The distinction between positive combat stress behaviors, misconduct stress behaviors, and battle fatigue is not always clear. Indeed, the three categories of combat stress behaviors may overlap, as diagrammed in Figure 3. Soldiers with battle fatigue may show misconduct stress behaviors and vice versa. Heroes who exemplify the positive combat stress behaviors may suffer symptoms of battle fatigue and may even be

battle fatigue casualties before or after their heroic deeds. Excellent combat soldiers may commit misconduct stress behaviors in reaction to the stressors of combat before, during, or after their otherwise exemplary performance. Combat stress, even with good combat behavior, does not excuse criminal acts. However, it could be taken into account as an extenuating circumstance for minor (noncriminal) infractions or in determining nonjudicial punishment under Article 15, UCMJ, for minor offenses.



*Figure 3. Overlapping of combat stress behaviors.*

## Post-Traumatic Stress Disorder

Post-traumatic stress disorder (PTSD) symptoms are normal responses after extremely abnormal and distressing events.

### ***Signs and Symptoms***

As with battle fatigue, post-traumatic stress symptoms come in normal, common, and warning signs. These signs and symptoms do not necessarily make the sufferer a casualty or deserve the label of disorder. It is normal for the survivor of one or more horrible events to have painful memories; to have anxiety (perhaps with jumpiness or being on guard); to feel guilt (over surviving or for real acts of omission or commission); and to dream unpleasant dreams about it. This becomes PTSD only when either the pain of the memories or the actions the person takes to escape the



memories (such as substance abuse, avoidance of reminders, social estrangement, and withdrawal) interfere with occupational or personal life goals. The normal/common signs deserve routine preventive measures, such as talking out and working through the painful memories. The warning signs certainly deserve this attention, as self-aid, buddy-aid, and leader aid. Good preventive measures can head off true PTSD, which might not show up until years after the incident.

### ***Post-Traumatic Stress Disorder and Battle Fatigue***

While PTSD and battle fatigue obviously share much in common, by definition, symptoms are not PTSD until the trauma is over (post). Therefore, this diagnosis should not be made while the soldier continues in, or is expected to return quickly to, the combat mission. As the dotted lines (Table 2) show, PTSD can follow battle fatigue (especially if inadequately or incorrectly treated). Israeli studies confirm earlier observations that immediate, far-forward treatment and return to duty protect battle fatigue casualties against subsequent PTSD. Premature evacuation of battle fatigue casualties often results in chronic PTSD. However, most cases of acute, chronic, and delayed PTSD after a war were not battle fatigue casualties during the battles.

### ***Post-Traumatic Stress Disorder and Misconduct Stress Behavior***

Post-traumatic stress disorder often follows misconduct stress behaviors. It may occur in--

- The victims of others' misconduct.
- Those who committed misconduct under stress and are haunted by guilt later.
- Those who were passive or reluctant participants.
- Those who simply observed severe misconduct and its human consequences.
- Those who were involved as rescuers or care givers.

### ***Post-Traumatic Stress Disorder and Positive Combat Stress Behavior***

Post-traumatic stress disorder can also occur in soldiers (or veterans and civilians) who showed no maladaptive stress behaviors at the time of the trauma and who showed positive, even heroic, combat stress behaviors. Even heroes can feel delayed grief and survivor guilt for lost buddies or be haunted by the memory of the enemy soldiers they killed in battle.

## Leader Responsibilities to Prevent Post-Traumatic Stress Disorder

During the conflict, commanders and noncommissioned officers have the additional responsibility of preventing or minimizing subsequent PTSD. The most important preventive measure is routine after-action debriefing by small teams after any difficult operation (see Chapter 6, FM 22-51, for additional discussion). Critical event debriefings led by trained debriefing teams should be scheduled following exceptionally traumatic events. Recommended leader actions are provided in Appendix A of FM 22-51. When units or individual soldiers redeploy home from combat, leaders should debrief them and help prepare them for the transition. As Figure 4 illustrates, painful memories do not have to become clinical PTSD or misconduct stress behaviors. They can be accepted and diverted into positive growth. Chapter 6 of FM 22-51 gives more information on PTSD and its prevention and treatment.

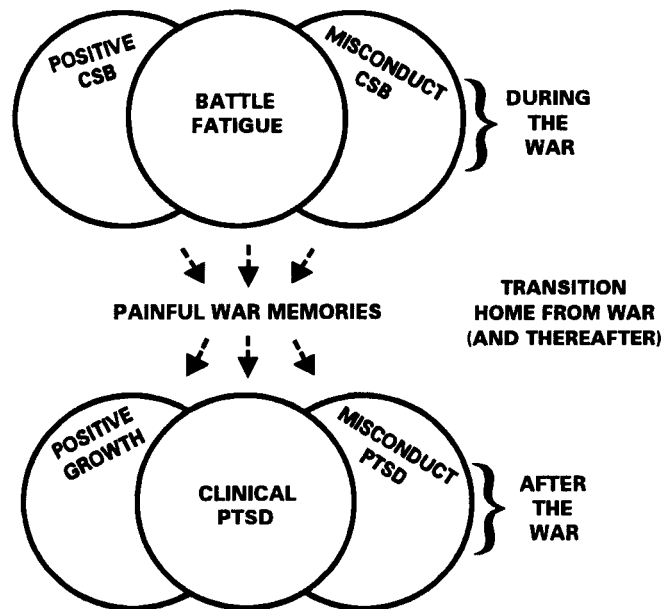


Figure 4. Relation between combat stress behaviors and PTSD.