

Understanding the Symptoms of Post Traumatic Stress Disorder

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Background:

Post Traumatic Stress Disorder (PTSD) was first recognized as a diagnostic category in the 1980 <u>Diagnostic and Statistical Manual of Mental Disorders</u>, (DSM III) (American Psychiatric Association; van der Kolk et. al., 1991) and initially described the dramatically altered functioning of traumatized American soldiers who had served in combat zones (Figley, 1978). PTSD is the only diagnostic category which is defined chiefly by its cause (Long, 1996).

Since 1980, when PTSD was established as a diagnostic category, sophisticated brain scans and other research exploring numerous dimensions of the causes, symptoms, and effective treatment techniques have dramatically increased knowledge of the interaction of biological, psychological and environmental factors relating to the disorder. Although traumatic events are a critical element in the development of PTSD, it is clear additional factors also play an important role, because the majority of people exposed to traumatic incidents do not go develop this disorder (McFarlane & Yehuda, 2000).

Definition:

Post Traumatic Stress Disorder (PTSD) can develop when a person has been exposed to a traumatic event in which "the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others". The response to this traumatic event must involve "intense fear, helplessness or horror" (DSM IV, 1994).

Incidence:

Between 7 - 12% of the general population are felt to be in PTSD at any given time (Kessler, et. al., 1995; Seedat & Stein, 2001). For men, serving in combat is the event that has the highest correlation with PTSD; for women, it is rape and sexual molestation.

Fourteen percent of adults experiencing the sudden and unexpected death of a loved one develop PTSD. This is the event that most frequently correlates with PTSD for both men and women, It is estimated that this is the primary cause of 27% of cases of PTSD in women and 39% in men (Yehuda, 2002).

Studies show that from 15 to 90% of children involved in traumatic incidents develop PTSD. A recent study found that 40 % of individuals living near the World Trade Center at the time it collapsed on September 11, 2001 were experiencing symptoms of PTSD at the time of the study (Washington Post, 2002).

Although the majority of those who develop PTSD appear to gradually recover without intervention, more than one third of people who develop PTSD fail to do so after many years (Kessler, et. al., 1995). Furthermore, many of those who are viewed as having gradually recovered, although no longer meeting the criteria for a diagnosis of PTSD, continue to experience some of the life-altering symptoms common to the

disorder.

PTSD and the Body:

Survival is the most basic function of every living creature. The human brain is structured so that survival is primary, taking precedence over every other human function. When a threat to survival is received, numerous brain and body systems are activated. Levels of adrenaline, norepinephrine, thyroid hormones, testosterone and other hormones rise dramatically to prepare the body for "fight or flight". These hormones increase the heart rate, blood pressure and stimulate numerous other changes in the muscles, senses and other body structures. In most instances the threat passes or is quickly handled, so the physical changes are short-lived and subside when the threat has passed. However, for individuals who develop PTSD after a traumatic incident, high levels of stimulating hormones and other physical changes continue, leading to many physical problems. Cortisol production, which can turn off stimulating hormones and reduce the length of reaction to threatening situations and triggers, is low in individuals who develop PTSD, and may have some role in differentiating who does and does not develop PTSD after exposure to a traumatic incident. As a result, individuals diagnosed with PTSD react more intensely to stress and for longer periods of time, than do individuals who do not have PTSD.

Causes:

A variety of traumatic incidents can lead to the development of PTSD:

- Death of children, parents, loved ones especially if the death was violent and unexpected (Holbrook et. al., 2001; Breslau, et. al., 1998; Murphy, et al., 2001)
- The belief that one's own death is imminent and certain (Marmar, et. al., 1996; Robinson, Sigman & Wilson, 1997; Teegen, Domnick & Heerdegen, 1997)
- Life threatening injury occurring during accidents, natural disasters, man-made disasters, military combat, living in a war zone, terrorist attacks, becoming the victim of a violent crime, (Blanchard, et. al., 1995; Bower, 1992; Brom, Kleber & Hofman, 1993; Difede & Barocas, 1999; Harvard Mental Health Letter, 1996; Holbrook, et. al., 2001; Maes, 2000; Schnyder, et. al., 2001; Tucker et. al., 2000; Zatzick et. al., 2001)
- Witnessing violence and/ or injury to others (Fitzpatrick & Wilson, 1999)
- Rape; traumatic symptoms increase when the victim is young, the rape is the victim's
 first sexual experience, the victim does not disclose the rape, the rape goes on for
 an extended period of time, the rape is violent, the victim believes he/she is going
 to die during or following the rape (Riggs, Rothbaum & Foa, 1995).
- Traumatic surgery and 3rd and 4th degree burns involving disfigurement and permanent changes in the body (Dew et. al., 2001; Difede & Barocas, 1999; van der Kolk, 2002a)
- Waking up during serious surgery, aware of the pain and what is happening, without the ability to communicate this awareness (Osterman et. al., 2001)

Age plays a significant role in the impact of trauma. The younger the individual is who is experiencing a trauma; the more likely he or she is to develop PTSD. Trauma

can and also lead to permanent changes in brain functioning when it occurs at a younger age, while the brain is developing. Furthermore, problem solving skills, maturity and more advanced abstract reasoning come with age and the absence of those skills impacts the child's ability to cope with trauma.

It also has been established that experiencing multiple traumas over an extended time period and involve injury and violence, often lead to development of more severe PTSD, often referred to as "Complicated PTSD". This is much more incapacitating and difficult to treat than the PTSD that develops after exposure to a single incident trauma (Bremner, Southwick, Johnson, Yehuda & Charney, 1993; Breslau, Chilcoat, Kessler & Davis, 1999; Johnson et. al., 1996; Long, 1996, van der Kolk, 1997a):

Examples of trauma which can lead to Complicated PTSD:

- Child abuse, which can be sexual, physical and/or emotional in nature. This is particularly the case when the abuse begins at a young age, extends for years, the abuse is sadistic, or if the abuser is someone who should be protecting the child (Harvard Mental Health Letter, 1996).
- Torture (Hanson, et. al., 2000).
- Domestic violence, which may be traumatizing to both to the victim of violence and the children who observe it (Perry, 1995; van der Kolk, 2002a).
- Violent neighborhoods and bullies (Perry, 1995; van der Kolk, 1996).

Previous Trauma:

Previous trauma has been found to play a significant role in the development of PTSD. In a research study involving the interviews of 2181 adults, Breslau, et. al., (1999) found:

- A history of any previous exposure to traumatic events was associated with a greater risk of developing PTSD.
- A history of multiple traumatic events had a stronger impact than a single previous event.
- Individuals who had experienced multiple traumatic events involving assaultive violence in childhood were more likely to experience PTSD from trauma in adulthood.
- A history of events involving single or multiple assaultive violence, both in childhood and at older ages, was associated with a higher risk of PTSD in adulthood.

The likelihood that an individual will develop PTSD when exposed to a traumatic event increases:

- In direct proportion to the time of exposure (Pynoos, Frederick, & Nader, 1987)
- In direct proportion to the proximity of the client to the traumatic incident (a higher percentage of residents living close to the World Trade Center during the collapse of the World Trade Centers on September 11, 2001 developed

PTSD than did residents living further away) (McFarlane & Yehuda, 2002)

- When an individual lacks control over a traumatic incident and cannot escape from it
- (Milkulencer, et. al., 1989)
- An individual has previously been experiencing psychiatric symptoms (North et. al., 1999)
- When guilt, shame or humiliation is experienced during and/or following the traumatic event (Southwick, Yehuda & Geller, 1991)

If hundreds of people were equally exposed to the same traumatic incident, individuals with the following characteristics would have an increased probability of developing PTSD:

- A limited education (Halligan et. al., 2000)
- Having been divorced or widowed (Halligan et. al., 2000)
- Low intelligence (Halligan et. al., 2000; Long, 1996)
- Being a female (Brewin et. al., 1999; Fullerton et. al., 2001; North et. al., 1999; Stein, Walker & Forde, 2000). Being female increases the probability of developing PTSD when exposed to intentional or assaultive violence from a male perpetrator (who would be stronger and more likely to hurt a victim), but does not increase the possibility of developing PTSD following disasters (Schonfield, 2000)
- Being unemployed (Joy, Probert, Bisson & Shepard, 2000)
- Never having been married (Creamer, Burgess & McFarlane, 2001)

Protective Factors:

Social support from family, friends and peers has been found to play an important role in buffering the impact of exposure to traumatic experiences. Hugs and other forms of touching that re-establish a sense of safety helps the body regain normal functioning after exposure to traumatic incidents. Children exposed to traumatic incidents tend to react to a trauma based on the capacity of their parent(s) to cope with the trauma (Manne, Duttamel & Redd; 2000; Tucker et. al., 2000; van der Kolk, 2002a). Therefore, it appears that if a family handles a difficult event well, it substantially decreases the risk of the child developing PTSD from the situation.

Symptoms:

The impact of exposure to trauma may be layered, so that each trauma builds upon the others until, at some point; a traumatic event becomes the trigger which activates PTSD symptoms. In other cases, the symptoms may appear gradually and progressively (especially to those working in jobs where traumatic incidents are common), leading an individual to have little awareness of the negative changes that exposure to traumatic incidents has caused in his or her functioning. Loved ones and peers often seem to be more aware of these changes than the individual experiencing them. Even in those with diagnosed PTSD, symptoms may change in intensity from day to day, or they may disappear for long periods and re-appear suddenly when activated by a triggering or stressful life event. To further complicate the diagnosis, PTSD can even occur years after experiencing a traumatic event, if the traumatic event

or some emotionally powerful aspect of the trauma has been dissociated or "forgotten", then is suddenly recalled. To qualify for a PTSD diagnosis, symptoms must have been experienced for more than thirty days; symptoms lasting less than 30 days, are labeled as Acute Stress Reaction. A high number of individuals diagnosed with Acute Stress Disorder will go on to develop PTSD.

Example of Immediate Symptoms:

Jim Forest, an engineer for Amtrak, had been on the job for three months when the incident happened. He was the engineer operating a train traveling south one afternoon, when he spotted a woman standing on the tracks, directly in front of the train. She was holding a young child. Mr. Forest tried in vain to stop the train, but trains just can't stop that quickly. Mr. Forest watched, horrified, as his train struck and killed the woman and her baby. Within 24 hours, Mr. Forest began to experience flashbacks and panic attacks, accompanied by an inability to sleep.

Example of Progressive or Cumulative Symptoms:

Eric Reese, a law enforcement officer, had been working undercover for years when he developed a full-blown case of acute PTSD. He believed his symptoms to have resulted from an incident that had taken place just days before his symptoms began. A drug dealer had stuck an ice pick in Mr. Reese's ear, threatening that he would stick an ice pick through the brain of any one who "snitched" on his operation. Although he believed he was about to die, Mr. Reese managed to bluff his way out of the situation. In reviewing Mr. Reese's trauma history, it was discovered that he had been exposed to quite a number of previous traumatic incidents. Among these were: a partner being killed in the line of duty; being a passenger of a car which exploded and burned (he barely escaped death); investigating the rape and murder of a baby by her father, which included digging up the baby's body; as well as several incidents where Mr. Reese believed he was about to die. His wife described how her husband had gradually changed following these incidents. In fact, the changes had taken place over 23 years. Clearly Officer Reese had been experiencing PTSD symptoms for many years. However, the most recent incident had moved these symptoms to an acute stage, making the symptoms more obvious and the change seem sudden.

Delayed Symptom- First Example

Mary's husband, a law enforcement officer, was shot eight times, while trying to apprehend a bank robber. She sat beside his hospital bed for days, as he remained in critical condition. Mary's employer became abusive to her for remaining at the hospital with her husband for 10 days rather than returning to work. After his release from the hospital, as he recovered at home, Mary provided him with a great deal of support. Although the shooting incident had caused her husband to develop some PTSD symptoms, such as an inability to read, Mary herself did not experience any symptoms. However, one year after Mary's husband had been shot; she and her husband were interviewed by a

newspaper reporter who was writing an anniversary article about the bank robbery and the shooting. Three weeks after the interview with the reporter, Mary's husband called his therapist for help, "I think you need to see Mary. She can't sleep; she isn't writing her reports, she is irritable, and doesn't want to talk." A session with Mary revealed that the reporter's interview had somehow integrated the traumatic aspects of her husband's critical injury with death and the abusive treatment by her employer, triggering delayed PTSD symptoms.

Delayed symptoms- Second Example:

Jane, age 48, was employed in a high level government position. Suddenly one day, for no reason that Jane could understand, she began to have flashbacks of her father sexually abusing her as a child. As these flashbacks increased, Jane developed symptoms of acute PTSD. These symptoms became so incapacitating that Jane was forced to take leave of absence from her job. Jane informed her sisters about her flashbacks, who didn't believe her allegations and responded by telling Jane that she was crazy and had obviously made up these memories. To deal with these flashbacks, Jane entered therapy. After a time, Jane found the courage to confront her parents by telephone. Both denied her abuse accusations. A week after this confrontation, Jane's father died. Although she was profoundly angry with her father, Jane decided to attend her father's funeral to make sure he was really dead and couldn't hurt her anymore. Following his funeral service, several of her nieces disclosed that Jane's father had been sexually abusing them up to a short time before his death.

Delayed symptoms- Third Example

"As a teenager, my leg was amputated from my hip down because of bone cancer. One day I had a normal life, the next day the doctor told I had bone cancer and immediately removed my leg. I had been a dancer; that was over. My life and my self image changed dramatically in just one day. For two years after the surgery I went through chemotherapy. I would have the chemo treatments on a cancer ward for teenagers and got to know some of the kids.. Several times when I arrived for a chemo treatment, I discovered that one my friends on the cancer ward had died. However, at the time I handled all of this well; nothing seemed to get to me. Now, I'm 36. My nephew was recently diagnosed with a serious disease and was scheduled for surgery. I went to visit him; he was in the same hospital where I had cancer surgery. When I got to his room, I realized that it was the same room where I had regularly taken my chemo treatments. Now, suddenly, it is as if I am a teenager again and I can't get the picture of losing my leg out of my mind. I can't sleep and I feel sick and angry all the time."

Post traumatic stress disorder freezes a victim at the point of the traumatic incident. Many victims are ashamed at having little control of the way in which their body responds to reminders of the trauma, because their mind views this response as 'weird'. (van der Kolk, 2002a). Their imagination and problem solving skills have become frozen. They make evaluations through emotions, rather than

judgment and thinking things through. The symptoms related to PTSD can be so life altering, that a victim feels as if they are "losing my mind" According to DSM IV, PTSD symptoms fall into three categories: Intrusive Symptoms, Arousal Symptoms, and Avoidance Symptoms.

A. Intrusive Symptoms

Intrusive symptoms are those which significantly interfere with normal functioning. Intrusive symptoms can be further sub-divided into the following: (1) Flashbacks or intrusive memories, (2) Night terrors of distressing dreams.

1) Flashbacks or intrusive memories which cause a traumatic event to be reexperienced in such a way that it feels as if the event were actually
happening again. The traumatic event may be re-experienced as intrusive memories of
the event, images, body sensations or other feelings. The event appears to be "stuck"
in the present memory, because the mind is unable to process the thoughts, feelings,
and sensations surrounding the trauma, which is necessary in order to move them into
past memory. Even events that were not directly experienced but vividly imagined,
such as a loved one dying in pain and alone, can be experienced over and over as a
flashback.

First Example:

Three children of an officer killed in a line-of-duty death, were seen for treatment four years after his death. Their ages were 14, 12 and 11. Each of the children was having flashbacks of their father's death, although none had witnessed his death. (Their father had been shot as he attempted to give a speeding ticket to a motorist.) Each child had constructed a unique flashback (each different from the other two) based on information he or she had been told regarding the details of their father's death.

Second Example:

Sharon's daughter was tortured to death by a serial killer. Sharon spent hours with the body of her daughter, touching every wound. She began to have vivid flashbacks of her daughter being tortured. She became obsessed with how much her daughter suffered before she died. Wondering if her daughter had known she would die and if her daughter had thought about her (the mother) before she died. Sharon also felt guilty for not being able to protect her daughter and had dreams of attacking the killer and preventing her daughter's death. (A common theme of dreams when a parent loses a child in an accident or violently.)

Flashbacks are activated by triggers (or reminders) associated with the trauma, and may be experienced through any sense, (i.e., smell, sight, hearing, or touch) or by a thought or feeling. Smell is the most powerful memory trigger. Re-experiencing the feelings associated with the traumatic event is often excruciatingly painful. For many individuals, flashbacks are re-experienced at the same level of intensity and emotion as the original traumatic incident. Consequently, reminders of the trauma are often avoided, especially talking about the event. Therapy is rarely sought because "talking about" the trauma reactivates flashbacks and painful, intrusive memories.

When several different stimuli become associated with the traumatic incident, the world can become a mine field of triggers leading to painful, and even overwhelming, emotions. Flashbacks or intrusive re-experiencing of the trauma must be present for PTSD to be diagnosed.

- "I can be doing most anything, and for some reason it will just suddenly pop into my mind"
- "I felt like I was thinking about it every minute of every day."
- "I have flashbacks where I see the gun pointed at me and my stomach is tight, my head pounds, my whole body feel weak and the fear is so intense that I sweat and shake".
- "If I have too much time on my hands, I start remembering, like it's happening again."
- "It's like I get the feeling that I did then. Pictures come in my mind. It feels like it just happened this morning. I have no control over it."
- "I try not to think about it, but I can't. It never leaves my thoughts."
- "I think about it every day, 10 times a day. I used to think about it 1000 times a day."
- "They opened the casket for me. He was burned all over. I still smell that smell every time I think of that."

Flashbacks may be symbolic in form:

Officer Long was involved in a two car accident in which a baby was killed. The accident had not been his fault; the other car involved in the accident had run a red light. The baby who died had been sitting in the lap of the front seat passenger. Officer Long had watched the paramedics as they tried to revive the baby. Rather than seeing a flashback of the paramedics working on the baby, Officer Long began to have flashbacks of a road sign which flashed, "You killed Johnny Smith, you killed Johnny Smith".

Flashbacks that have long faded to long forgotten traumatic incidents may be triggered by a similar incident, many years later.

"When I saw that train on the news last night....it was on fire... people were screaming because they couldn't get out. It took me to a memory where I could see that guy throwing the fire bomb. I saw a man burn alive. He was screaming and throwing up. It was 30 years ago, and it seems like it just happened. Now I can't get that picture out of my mind".

Because flashbacks are triggered by reminders in the environment, as the number and the proximity of triggers increases, so do the frequency and intensity of flashbacks.

Example One:

"When I am giving my lecture on accident reconstruction, I focus on a particular part of the slide and my mind goes blank. The slides that make my mind go blank are those of accidents that really bothered me. I have to cover it up and continue to talk. I don't know if anyone notices or not." (Law

enforcement officer)

- 2) The second category of Intrusive Symptoms consists of night terrors and distressing dreams of the traumatizing event: Memories of the traumatic incident intrude into sleeping hours through night terrors and nightmares. Nightmares are usually related to the event, either directly or symbolically. When the trauma is a crime, often the dream centers on lack of safety, i.e., the criminal harming or killing the dreamer and/or his family. These dreams often begin by mirroring the traumatic event and become more symbolic over time. In normal sleep, muscles are paralyzed during dreaming, but PTSD can lead to incomplete muscle paralysis during dreaming, resulting in physical enactment of nightmares (Whealin & Francis, 2000).
- "He's shooting me and I'm trying to get away, but I can't move. I wake up with sweat all over my body".
- "I wake up crying, like I'm drowning. I know I'm still asleep, but I have to wake up but it's so hard."
- "I wake up and I'm scared, but I never remember what I'm dreaming about. I'm getting up at least two times a week and throwing up."
- "My husband wakes me up about twice a month. I'm dreaming he has bombs on his stomach and I'm trying desperately to knock them off before they explode."
- "I keep dreaming that I'm being buried alive. When I wake up, I'm so upset I
 don't sleep the rest of the night".
- "He's shooting at me and I'm trying to get away, but I can't move. I wake up with sweat all over my body".

B. Arousal Symptoms

The second major category of PTSD symptoms is referred to as arousal symptoms. PTSD is associated with hyper-stimulation of the nervous system, similar to the way a body responds to high levels of caffeine or stimulants. Consequently, PTSD causes many arousal symptoms. There are five major categories (1) Tension, Anxiety, Hyperactivity, (2) Hypervigilence, exaggerated startle response, unreasonable fear, (3) Interruption of sleep cycle, (4) Problems in concentrating, reading, writing, organization, and (5) A sense of being "stuck" in time, problems making even routine decisions. Each is discussed below.

- 1) Tension, Anxiety, Irritability, and Hyperactivity: These symptoms include feeling jumpy, on edge, shaky. Little things become very upsetting. The response to small irritations may be screaming or tears. Emotions can instantly move from being absent to being intense, without moving through the normal stages of escalation.
- "I had to stop work. I had a desk job and I loved it, but I couldn't sit still. Still can't. That would be OK if I was really doing something, but I just move."

PTSD leads to problems in modulating anger; anger may leap from non-existent to intense rage within a matter of seconds.

- "At work, everybody says I've changed. I look more angry. It doesn't feel good when people say they want back the old me."
- "I curse a lot. People really get to me".

- "I want to hit, to smash my head into a wall."
- "I have to stay in agitation to keep from getting angry."
- "I over-react. Like not feeling calm-like. Things are bothering me. I feel like that all the time."

PTSD can lead to anger which is expressed in poor judgment and behavior that is dramatically different from the way the same person would have behaved prior to being traumatized.

"After serving as a rescue worker at the bombing in Oklahoma City, I returned home and didn't talk to anyone about how it had affected me. A couple months later, I was in state court, testifying about a criminal case I had investigated. During my testimony, I got in a screaming argument with a defense attorney. I used to be so calm and let everything roll off my back. The judge wrote a letter to my supervisor. That's why I'm here for treatment." (Law enforcement officer).

PTSD and symptoms of anger may lead to aggressive driving and road rage (van der Kolk, 2002a):

 "I get in my car and my personality changes. I get into rages. If someone pulls in front of me, I follow them, giving the finger and honking my horn. I instantly go from being calm to rage"

2) Hypervigilence, exaggerated startle response, fear and sense of being unsafe: People suffering from these types of symptoms often do not feel safe. If the traumatic event(s) occurred in the home or areas traditionally expected to be secure, the feeling of loss of safety may be more intense. Phobias or intense fear may develop, especially about being traumatized again or reminded of the trauma. Victims may feel constantly on guard against attack, often to the point of paranoia, with the body seeming continually braced and nerves are on edge. Small sounds, movement, or shadows may cause intense response of fear or flight. The sense that attack or traumatization will recur is common. A casual bystander may be seen as threatening or dangerous.

- "If I'm walking someplace, I'm constantly looking behind me. I stop like I'm paranoid and let them pass. If the leaves shuffle, I jump."
- "Like when I'm looking at T.V., I try to concentrate but all of a sudden I look around to see if my blinds are closed. I try to keep them closed all the time."
- "I feel like someone is sneaking up on me. If I am by myself in my apartment, it drives me crazy. I am always looking around to see if someone is there."
- "When I go to a restaurant, I have to have my back to the wall. I'm watching
 everyone, every minute. When I walk down the street, I try to have eyes in the
 back of my head. (Hypervigilence is fairly common in law enforcement officers
 and Secret Service Agents. and not necessarily a symptom of PTSD in these
 professional groups; it's a necessary skill of survival and doing the job.
- "I saw the gas meter man and I thought it was someone trying to get in the house. I got my gun and barricaded the door. I positioned myself at the side of the

- window. When I realized who it was, I felt stupid." (Law enforcement officer recovering from being shot while making an arrest)
- "It took away some kind of innocence. I feel I'm not safe anymore". (Law enforcement officer involved in line-of-duty shooting).

An exaggerated startle reaction is a common symptom of PTSD, but usually does not develop for at least a week after exposure to the traumatic incident (Yehuda, McFarlane & Shalev, 1998). Traumatized people continue to react to a series of loud, expected sounds as if each new sound was unexpected and they are hearing it for the first time. Normally people will habituate (get used to) loud noises, but PTSD victims often will not (Pitman, et. al., 1999; Ornitz & Pynoos, 1989). Even when treatment is successful at reducing or eliminating the flashbacks and other symptoms experienced by a victim, many will continue to experience this exaggerated startle reaction. It may be that some neurological changes that occur as the result of exposure to trauma may be permanent.

Trauma can lead an individual to become fearful of change and to have problems making decisions. To feel safe, some individuals in PTSD try to control their environment or other people; this need to control is an effort to avoid triggers and symptoms by ensuring their environment is safe and predictable.

- 3) Interruption of Sleep Cycle: The inability to experience a night of deep and relaxing sleep is generally caused by hyper-stimulation of the nervous system, however, a victim's fear of experiencing traumatic nightmares and night terrors, also plays a factor. Difficulty falling asleep, or problems waking up after sleeping for short period followed by an inability to return to sleep are typical. Walking up numerous times during the night is an additional way that victims fail to achieve deep and restful sleep. If interruption of the sleep cycle result becomes chronic, additional symptoms related to sleep deprivation occur, such as paranoia, problems with co-ordination and difficulty with memory and co-ordination.
 - "It feels like something is on my mind, but I can't figure it out and it won't go away. It keeps me awake".
 - "That's why I have trouble falling asleep 'cause everything goes to my head."
- 4) Problems in Concentrating, Reading, Writing, Speaking, Organization, and Decreased Attention Span: The hyper- stimulation related to PTSD interferes with concentration in a way that thoughts become fragmented. The inability to concentrate causes problems in listening because the mind keeps drifting off to other places or reliving the traumatic event. Reading comprehension as well as written communication may be dramatically affected, again because thoughts seem to jump from idea to idea or from one memory to another. People in PTSD miss appointments and forget important events.
 - "I miss appointments, I forget important events"
 - "I have problems in initiating behaviors. I just sit and stare."
 - "On certain days, I can't stay focused.
 - "I don't know how I drove up here today; my mind escapes me. I'll be talking to

- someone and I hear their voice, but I'm not listening.
- "I would start to tell a story and after the first sentence, I would forget what I
 was going to say. It happened all the time. I was afraid to talk to anyone." (Law
 enforcement officer who had been in PTSD for 10 years, sleeping 2-3 hours
 nightly)
- "I stopped teaching police schools. I stopped teaching Sunday school. I couldn't remember what I was going to say from one minute to the next. I just stopped doing anything which would let people know I couldn't remember."
- "I used to visit people and if there was a lot of noise and confusion, I'd get up and leave. Now I have the house I used to try to get away from." (After successful MTP treatment)

Symptoms of PTSD can cause even a highly educated adult to become unable to read.

- "I bought all these books because I know I will be home at least six months recovering. But I can't read; I'm a college graduate and I can't read. I read the first sentence and I think of something else. I feel like my mind is racing. It's the comprehension; I'm losing it." (Law enforcement officer recovering from being shot).
- "Like, if I'm reading something, I'm trying to pay attention to it, but I can't. It's like my eyes are on the words, but my mind's not."
- "I used to read all the time. Now I read the first sentence and I think of something else. I feel like my mind is racing".

PTSD can also cause problems in math, writing, memory and completing assignments. Traumatized individuals, especially children, have problems in providing an organized narrative of the incident which traumatized them. They may also have difficulty in sequencing a story, both verbally and in writing. Sequencing problems cause an individual to skip around in relating a story, rather than starting at the beginning, moving through it chronologically and following with the end. Chronic PTSD may lead to fragmented speech, as a victim breaks up sentences into two or three words, with inappropriate pauses between each set of words.

• "I do anything to avoid writing my reports. I take two hour lunches, make phone calls, and go to the water fountain. I just can't make myself write them." (Attorney whose husband, a law enforcement officer, was shot multiple times).

PTSD led to problems in learning from experience; consequently the same mistakes are continually repeated. Failure to learn from experience typically cause major difficulties in many areas, including work settings, school work and relationships.

"He does the same things over and over, even though I punish him. You'd think he'd learn, but he doesn't." (Mother of elementary school child)

- 5) Sense of Being Stuck; Problems in Making Decisions: Because victims feel stuck and frozen in the past at the point of their trauma. They often have problems in making decisions, because this requires a present and future orientation. Inability to initiate routine activities, use past problem solving techniques, as well as to shift from one point of view to another, can be additional symptoms that develop after traumatic incidents.
- "My supervisor said that I can get out of this office and move to another one. This office reminds me of the shooting but I can't decide what to do. I want to go, but I just stay here." (Police officer involved in a line of duty shooting; suspect died).

C. Avoidance Symptoms:

The third, and final, major category of PTSD symptoms are referred to as Avoidance Symptoms. Because flashbacks, as well as feelings and thoughts associated with the trauma, are terrifying, painful, and sometimes even disabling, efforts to avoid any thoughts, feelings, conversations, people or places that trigger these symptoms are common. Numbing of responsiveness to people and one's surroundings is an additional symptom, believed to be the result of changes in brain functioning. Numbing can lead professionals, friends and co-workers of victims to mistakenly believe that he or she is functioning well. Avoidance and numbing by the following means is common:

- 1) Inability to recall parts or the entire traumatic event: memory problems are common in PTSD. Some aspect of the traumatic event may be difficult or impossible to remember. Additionally, the high level of stimulating hormones present as a traumatic event is experienced can interfere with the integration of memory, leading the trauma to be experienced on a sensory level, without words to describe the experience.
 - "It's like I can remember pieces of it, but it just won't come...I can't remember."
 - "We have a teenage victim whose whole family burned to death in a house fire. She was discovered in the burning house beside her mother. We suspect arson, but she says she can't remember anything about the fire." (Police officer)

Suicide is a drastic and final way distraught victims experiencing disabling symptoms may chose to avoid further anguish. One research project found that for every suicide resulting from depression, 15 results from symptoms of PTSD (Davidson, et. al., 1995). Symptoms can lead a victim to feel both out of control and shameful at their inability to control the symptoms. In addition, the numbing and disengagement typical of PTSD can make it easier to choose suicide as an option.

 "Every night when I put my weapon away, a voice in my head would say, 'Just do it'. I'd put the gun in my mouth, but then I'd get a picture of my son finding my body and I couldn't do that to him. I'd put my gun away, but the voice would talk to me the next evening and I'd have to fight it again."

Although not actively suicidal, many traumatized individuals engage in behavior which is clearly quite dangerous and life-threatening. They may, for example, drive a motorcycle at 120 mph, drive a car too fast and recklessly or place themselves in other very dangerous situations. Some reckless behavior is a result of an inability to predict consequences, but high risk behavior may also be a way of trying to avoid PTSD symptoms without making the final decision to intentionally kill themselves.

- "I figure if I die, I die. That way life takes care of it. I don't really care if I die, but I'm not going to kill myself."
- "I sometimes think I'd be better off dead. I'll go to the mall and park at the furthest spot in the dark and hope that someone will jump me and kill me...I'd be better off. (27 year old mother whose father was killed in a line-of-duty three years prior to this. She was in PTSD and also experiencing grief.)

In an effort to avoid symptoms, many victims become addicted to alcohol and/or legal or illegal drugs. "Alcohol is probably the oldest medication for the treatment of posttraumatic stress, and may well be an effective short-term medication for sleep disturbances, nightmares, and other intrusive PTSD symptoms" (van der Kolk, 1996). Alcohol numbs the hippocampus which is highly impacted by traumatic experiences, reducing symptoms. The ability of alcohol to temporarily reduce PTSD symptoms may be the reason that many alcoholics have a history of being traumatized and why professionals in high risk occupations, such as law enforcement, have institutionalized use of alcohol (sometimes referred to as "Choir Practice"). Brain imaging has shown that early childhood trauma may lead to brain changes that make a victim particularly vulnerable to addictions. However, typically, when used for more than short-term, alcohol and other drugs lead to even greater problems that did the symptoms of PTSD.

- "Every night after work, I go out with other cops and have, at least, a couple drinks. It's become a regular thing." (Law enforcement officer in PTSD)
- 2) Numbing and Diminished Interest in Significant Activities. Dulled or blunted sense of feelings: Victims comment that they feel "shut down" and dead inside. Through "numbing" a sense that nothing is real may evolve. Feeling "not human" or "in another dimension" while going about daily routines is often related. When asked to relate details of the trauma, an individual may relate the experience as though it was watched in a movie. Emotions, particularly positive emotions like love, may become so numb they are not experienced. When in this state, others may believe that the trauma is being handled well by the person because there is little reaction to details of the trauma.
- "I feel shut-down. I don't have anything to say. I can't join in conversations. I'm

very uncomfortable."

- "I didn't tell you this. I stopped eating. I stopped drinking. I stopped talking to my family and friends. I thought I could handle it alone, but what happened just kept going over and over in my head". (Law enforcement officer involved in violent encounter).
- "Sometimes I'm talking and they're listening, but it seems like I'm just having a conversation with myself or sometimes they're just not there and I'm talking to myself."
- "I'm not interested in things. I don't laugh. I don't do much of what I used to. I don't care."
- Problems with Relationships or Attachment: Pulling away from social situations
 and the common activities of everyday life is common, as is isolation from friends
 and relatives. There is often a loss of love or feeling for loved ones. Laughter
 disappears, as does a sense of humor. Feelings of love may become so numb
 that they seem to have disappeared. Victims may use work as a way to isolate
 and avoid. Young children may develop attachment disorders and fail to develop
 a conscience after prolonged traumatic exposure.
 - "I don't want to talk to friends; I don't want to talk to anyone."
 - "In the morning, I pretend I'm asleep so I won't have to talk to my wife. I just don't feel like talking. I've turned to another woman on my squad; she listens to me and understands what I have been through. I love my wife, but I just feel like I'm pulling further and further away from her."
- **4) Territorial Issues:** The belief that others are trying to get what is yours and intense feelings of possessiveness may occur. This may be another indication of withdrawal from significant relationships or of being easily irritated. In traumatized children, this symptom may be expressed by fighting or aggression. Children often fight among themselves over getting their fair share. Stealing may be a way of symbolically claiming what is theirs.
- "My brother came to visit me. I didn't want him in my house. I watched him all the time and I wouldn't tell him anything. He kept asking questions."
- "You were right about being territorial. A secretary put her coffee cup on my desk and I went nuts. My partner wanted to put some of his papers in my filing cabinet and that really upset me. He's my best friend, but I was upset about sharing my space. I never used to be like that".
- "I used to have lots of friends at the office, but now I don't want anyone near my desk. One day, when I was out sick, my co-worker went through my desk looking

for a report. I went nuts when I found this out."

- 5) Absence of Fantasy/No Sense of Future: Because PTSD causes thoughts to be stuck in an endless loop which focuses on the past, planning for the future, fantasizing, daydreaming about being successful, and making lists of what must be accomplished are negatively impacted. "They can't imagine what the outcome of their actions will be" (van der Kolk, 1996). Traumatized individuals have problems considering the consequences of their behavior or learning from experience.
 - "I thought everyone in the office was against me, talking about me, trying to get me fired or put on disability retirement."
 - "I want to do things, but I can't get to it. I want to do it, but I just don't try."

PTSD can dramatically change the way an individual functions and the way in which his or her personality presents itself. A single incident trauma can dramatically alter the functioning of an individual, even for a life time.

How "The Body keeps the Score" (van der Kolk, 1995)

PTSD can have a profound negative impact on many systems of the body: a) changes which come about related to high levels of adrenaline, norepinephrine and other hormones, b) diseases which are the result of a compromised immune system, c) somatoform illnesses,

A. Changes related to high levels of adrenaline, norepinephrine and other hormones:

Impact on the Heart:

- Higher resting heart rates (Buckley and Kaloupek, 2001; Muraoka, Carlson, & Chemtob, 1998; Orr et al., 2000).
- Significantly higher heart rates during sleep (Muraoka, Carlson & Chemtob; 1998).
- Higher diastolic blood pressure (Muraoka, Carlson & Chemtob, 1998).
- Higher than normal rises in blood pressure (Buckley and Kaloupek, 2001).
- Higher systolic blood pressure (Herman, 2000; Tucker, Smith, Marx, Jones, Miranda & Lensgraf, 2000).
- Higher diastolic blood pressure variability (Beckham et. al., 2000).
- Elevated cholesterol, low-density lipoprotein, triglycerides and reduced high density lipoprotein-when PTSD was chronic (Kagan, et. al., 1999).
- Nonspecific ECG abnormalities, atrioventricular conduction defects and infractions (Jankowsi, 2000).
- Even for individuals not in PTSD, a single stressful experience was found to induce long term hyper-responsibility of blood pressure (Bruijnzeel, Stam, Croiset & Wiegant; 2001).

Clearly, with alterations in blood pressure, heart rate and blood fats, the potential of developing heart disease increases significantly. Other studies have found a relationship between hostility and the development of cardiovascular disease. Vietnam veterans with chronic PTSD have been found to have high levels of cynical hostility. Anger is a primary characteristic of combat veterans with PTSD, and may be associated with chronic PTSD caused by other types of traumatic events (Kubany, Gino, Denny & Torigoe; 1994).

Gastrointestinal Ailments:

PTSD has found to be correlated with increased incidents of a variety of gastrointestinal problems (Breslau & Davis, 1992; McFarland et. al., 1994; Shalev et. al., 1990; Wolfe et al. 1994; Schnurr, 1996; Schnurr, Spiro & Paris, 2000).

Neurological Symptoms & Musculoskeletal Disorders:

Problems with neurological functions and physical difficulties in muscle and/or systems involving bone structure have been found by McFarlane, Atchison, Rafalowicz & Papay, (1994) and Schnurr, Spiro & Paris (2000).

B. <u>Compromised Immune System:</u>

Individuals with chronic PTSD have been found to have altered immune system functioning leading to illness, infections, tumor development, slow wound healing, and the tendency to get sick when stressed (Boscarino & Chang, 1999; Cacioppo, 1994; Cacioppo, et. al., 1998; Docic et. al., 1998; Inoue-Sakurai, Maruyama & Morimoto, 2000; Marucha & Favagehi, 1998; Sabioncello et. al., 2000; Uchino et. al., 1995; Wilson, et. al., 1999).

C. Somatoform Problems:

Somatoform disorders are psychiatric disorders characterized by physical symptoms suggesting a medical condition which can not be fully explained by a physical disorder or substance abuse/medication. These disorders cause significant distress and interfere with occupational and social functioning (Merik, 2002). A significant percentage of office visits to medical doctors are believed to be related to somatoform problems. Until recently many in the medical community viewed patients having these disorders with disdain, perhaps viewing the patients with these disorders as defective. However, in recent years, medical researchers, such as Dr. van der Kolk (1995) have discovered that traumatic experiences are often expressed by the body, i.e., "the body keeps the score". Some somatoform disorders, particularly gastrointestinal, neurological problems and those related to pain may be caused by the increase in adrenaline and other hormones produced by the body during periods of prolonged stress, particularly in individuals diagnosed with chronic PTSD. Lack of sleep, a primary symptom of PTSD, may also play a large role in disorders diagnosed as somatoform. Somatoform symptoms may also be related to body sensation

flashbacks, in which the body re-experiences the pain associated with a trauma, such as child sexual abuse. Unexplained pain in the genital and urinary tract region has been associated with woman who were sexual abuse and/or rape victims (Briere & Runtz, 1993).

Researchers have consistently found that PTSD and repetitive exposure to traumatic incidents lead individuals to experience high levels of pain (Baker, et. al., 1997; Beckham et. al., 1997; Richardson, 1997). 95% of fire fighters and paramedics indicated that they had a pain complaint in the week prior to the study (Beaton, Murphy & Pike, 1996). A survey of law enforcement officers found that in the month prior to the survey, 26% had headaches, 43 % had backaches, and 22% had digestive difficulties (Richardson, 1994).

Clearly, PTSD and job-related trauma has a detrimental impact on all levels of human functioning, including the physical, emotional, intellectual and social.

Medication:

Serotonin-reuptake inhibitors, such as Zoloft and Paxil, can alleviate many PTSD symptoms and seem to improve overall functioning. If these medications are not successful in reducing symptoms, there are numerous other medications that can reduce the symptoms related to PTSD. Medications will not cure PTSD, since symptoms return following withdrawal of medication. Medications can help victims to function more normally and are often of great benefit in helping clients attend and participate in therapy as they process traumatic memories (Davidson et. al., 2001; Davidson, Rothbaum, van der Kolk, Sikes, & Farfel, 2001; Tucker, et. al, 2000; Yehuda, 2002).

Dissociation

Dissociation can be a symptom of PTSD, particularly PTSD resulting from childhood abuse. Dissociation is a disconnection or disengagement from full awareness of time, self and/or external circumstances (Turkus, 2002). Dissociation has a variety of forms, which move along a continuum from more normal experiences to those which are quite disabling:

- 1. distraction
- 2. daydreaming, fantasy
- 3. tunnel vision (narrowing of vision to focus on a threat)
- 4. amnesia (memory dissociated from awareness because of trauma)
- 5. fugue (confusion about one's identity or assumption of a new identity)
- 6. de-realization (feeling as if reality is a dream or a movie)
- 7. depersonalization (feeling detached from one's body or outside of one's body while observing what is happening, as a neutral observer)
- 8. catatonia (a body which is stiff and unmoving, displaying excessive movement without purpose or muscle movements which are stiff or peculiar)

Dissociative experiences which are both normal and common include day

dreaming and 'spacing out'. Many automobile drivers have experienced dissociation in this manner in that they arrived at a destination with little awareness of driving or, on a morning when they had a doctor's appointment, finding that they had taken the route driven daily to their job, rather than the doctor's office, because their conscious mind was thinking of something other than driving.

Although day dreaming and 'spacing out' seem to arise from thinking about something other than the task at hand, many types of dissociation seem to arise in response to threat. For example, dissociative tunnel vision is an intense focus on the source of a threat, is to insure that seems designed to insure that creates focus intensely on the source of a threat in order to respond to it more effectively. Tunnel vision impacts an individual's description of the traumatic event; often some aspect can be described in the most minute of detail, while the individual has little recollection of other details in the environment that were not the focus of the threat.

"I know what the police mean when they say that victims are poor at giving descriptions. The police asked me to describe the man who robbed me and all I could remember is, "He was white". That's all I knew. If I saw him again, I wouldn't recognize him. I do know he was carrying a stainless steel .38 with a long barrel and there were bullets in all chambers."

Law enforcement officers often experience tunnel vision when confronted by dangerous and life-threatening situations:

Example One:

"I saw the suspect use his car to block the officer's cruiser from another jurisdiction. The suspect jumped out of his car and began shooting at the officer. Although wounded, the officer ran behind his cruiser for protection. The suspect was following him to the back of the car, I believed to kill him. My vision narrowed. All I saw was the suspect; everything else seemed very distant. I leaned out of my car and yelled, "Police, drop your weapon." He turned to fire on me. I fired twice and the suspect fell out of sight. I thought, 'where did he go?' When I fire at a suspect, I'm supposed to empty my weapon. I was so focused I didn't realize I had killed him."

Example Two:

"I knew the guy was shooting at me because I was standing in front of a tree and pieces of bark were flying all over me when the bullets hit the tree, I felt the pieces of bark, but I didn't hear a thing."

While tunnel vision helps a person to respond to an imminent threat, amnesia seems to provide protection from the memory of an overwhelming trauma. Some forms of amnesia appear to be a psychological response, however, While amnesias following adult trauma have been well-documented, the mechanisms for such memory impairment remains insufficiently understood Depersonalization seems also designed for protection, specifically from the pain involved in dying. Depersonalization involves feeling detached from one's body or experiencing oneself as being outside of one's

body while observing what is happening. People who have been critically injured or involved in incidents where death appeared imminent frequently relate having this experience. For most of these individuals, their depersonalization experience was their first. Most describe moving to a space above their body while observing what was happening to their physical body, impartially or with little emotion. When the danger of dying was over or after medical personnel stabilized their body functions or brought those who were clinically dead back to life, these individuals reported that they returned to their physical body. This process was first described by Elisabeth Kubler-Ross in Death and Dying (1993). Nature appears to protect animals in a similar way by having their bodies go into shock when captured by predatory animals, so they do not experience the pain of dying a violent death.

Example One:

"I was in the recovery room, following the removal of my stomach because of cancer. Suddenly, I left my body and was up at the top of the room. I watched as the staff responded to a 'Code Blue'. I knew my heart had stopped, but I had no feelings about this. Suddenly, I was back in my body and I could feel the pain. I didn't want to come back."

Example Two:

Julie, a woman who worked in a cleaning department of a large agency, asked for help related to a traumatic experience. A routine background investigation conducted by her employer discovered that Julie's new boyfriend had previously murdered an old girlfriend and had served time in prison for this. Julie was counseled to leave him. As Julie was moving out of his apartment into a new one she had rented, she told her boyfriend that her job was more important that living with him. He replied, "If I can't have you, nobody will." Not understanding the danger in those words, she did not seek help. Julie reported that on the following day, her boyfriend showed up at her new apartment. After letting him in, he violently attacked her with a kitchen knife, stabbing her multiple times. Neighbors heard her screams, and saved her. The boyfriend was arrested and convicted of attempted murder. Because Julie related the story with so little emotion, she was asked if she had left her body during the attack. Julie answered, "Yes. I left my body and sat on the couch across the room and watched him stab me. I didn't feel anything. I saw him break off the blade of one of the knives and go into the kitchen to get another one."

Unless asked directly, "Have you ever had the experience of leaving your body and watching yourself with no feelings?", few clients volunteer this information. Although it may be apparent to the therapist as a client describes a traumatic experience that the client dissociated and left their body, many clients do not understand what happened as they describe their experience. The belief that death is imminent appears sufficient to cause a dissociative response, even before there has been physical injury or pain.

Example:

James was a passenger on a plane in which the engine disintegrated as the plane took off and large fragments sliced through the side of the passenger cabin. Two passengers seated immediately in front of him were decapitated. When asked to talk about the most traumatic pictures of this event, he said, "When this first happened, I was at the top of the cabin, looking down on the scene. I thought the plane was going to crash. Then, I remember being back in my seat, looking at the blood which had splattered everywhere." James did not realize he was saying he left his body when he thought the plane would crash and returned to it when he realized that he was safe, and only the people in front of him had died.

It is possible to control a dissociative detachment from the body, even when there is threat of imminent death:

Example:

Maggie, age 7, was brought to therapy because of intense anxiety related to her belief that someone was going to break into her house and hurt her. After three therapy sessions focused on treating her anxiety, Maggie and her family arrived home together, at about 5:00 pm. As Maggie's younger sister entered her bedroom, a man jumped out of her closet, chasing her down the hall and cutting her with a knife in an attempt to restrain her. The intruder tied up each family member (parents and two children), placing them in separate rooms. For almost four hours, the intruder ranted and raved, clearly indicating that he intended to kill all family members. The father managed to talk the intruder out of killing anyone and into letting everyone go. Maggie's father later related, "I could feel my mind start to leave my body and I knew if I did that, my family was dead. So I refused to allow my mind to leave." When asked if he had ever left his body before, he replied "No".

It is often comforting to survivors who have lost a loved one to a violent death when a therapist explains the dissociative response that seems to protect from the pain of violence and death. Understanding that their loved one did not experience the pain of death or torture because nature provides a natural method of escape can be comforting to a grieving parent or loved one.

Interestingly, depersonalization is used in several therapeutic techniques. For example, a hypnotist will have a client detach from his or he body to reduce pain, the same process that occurs during depersonalization. In V/K dissociation, an NLP technique, a client is asked to leave his or her body, leaving their feelings with their body and paying no attention to the traumatic incident as it is reviewed on a movie screen. The client is asked to take just his or her intellectual self to a projection room and observe their traumatic incident, without emotion.

Claudia Green, M.D., [See article on our website.] a therapist who has worked with over a thousand law enforcement officers, lists describes dissociative symptoms which she believes to be common in "otherwise healthy police officers" who had been involved in very traumatic incidents, usually involving horrific death scenes

and human remains:

- Selective amnesia-inability to recall sounds, colors, textures, location of movable objects, relative positions of both landmarks and officers as well as time sequences and intervals
- Localized amnesia-inability to recall segments of traumatic events, which might involve personal actions and/or those of others
- **Depersonalization** feeling unreal, like a "robot", "an actor in a play", "going through the motions", detached from body parts or "just going through the motions" during a traumatic incident.
- **Derealization**-distortions of perception and senses. Whispers may seem like shouts, loud voices like whispers. Objects in a room may seem larger or smaller than they actually are. Colors may seem brighter or dimmer. Time may seem to fly by. Officers also reported experiencing "comfort smells" such as the smell of their mother baking bread or the smell of their favorite food.
- General dissociative responses-feeling as if they were in a dream, a daze or a fog. Problems in shifting thoughts. Feeling as if there is a delay between their thinking and behavioral response, particularly in responding to sounds. This may also involve a delay between wanting to say something and actually saying it.

Dr. Green believes dissociative responses to death scenes are common in rookie officers working death scenes and tend to persist until the officer has worked five to ten death scenes. <u>Human Remains and Psychological Impact on Police Officers</u>, (2001).

Dissociation can be a symptom of Complex PTSD, and is typically related to violent, abusive and/or traumatic experiences during childhood. Amnesia for traumatic events which took place during childhood is common in abuse victims. Feeling unreal (de-realization) also seems to persist in many child abuse victims; these victims, as adults, feel that they are a phony and when others recognize this, they will be rejected. Depersonalization is also described by abuse victims. The first time an abused child leaves his or her body (dissociates) when being severely beaten or sexually assaulted, it may be the result of the conclusion by their brain that death is imminent. However, when the child does not die, and the violently abuse continues, dissociation can become a way the child finds safety and avoids pain. Children experiencing long-term physical and/or sexual abuse often learn to dissociate to deal with the inescapable pain and the overwhelming fear. The inability to predict when abuse will occur and will it will end has been found to increase symptoms of PTSD, perhaps because the child has no control (van der Kolk & Fisler, 1994). Children who learn to dissociate from child hood abuse rarely know when the abuse will end.

Law enforcement officer explaining a history of dissociation:

Therapist: When's the first time you remember dissociating? **Officer:** When I was five years old. It's gotten a lot less in recent years, but

when I was younger, I did it all the time

Therapist: Did you ever dissociate when your Dad was beating you so you could not feel the beatings?

Officer: Yeah, that's what I used to do all the time. I knew that's how I was going to defy him. He wanted to see me cry. He'd be standing there, cursing, screaming, "Cry! Damn you, cry!" And I wouldn't. He'd be beating me with a belt, kicking me, punching me, and it didn't bother me. After a while, that's how I really got in a good place, because I wasn't afraid. No matter what he did, it didn't bother me. It probably made things worse for a while because he found that very discouraging, which was a victory for me. When I dissociate, I feel nothing. It's not anger, in fact it's almost the opposite. I experience nothing... No anger, nothing. I was very, very adept at it when I was a teenager, and then, I've gotten less and less adept, as I've gotten older, because I haven't done it nearly as much.

Therapist: How have you experienced the dissociation as an adult? **Officer:** I'll give you an example. Years ago, I'm in the Army. We're on the ground and they tear down the camp and they're supposed to come get everything, everybody's suppose to leave. They take all the winter gear away 'cause it's a nice day. All of a sudden, a cold front moves in. It's October, and it starts snowing and blowing. Guys were standing together hugging each other trying to get warm, everybody's miserable. I just crawl up in a tarp and I just go for four hours, until they come to get us. The guy's asked me, "Is this some kind of spiritual thing, you weren't even there?". They were absolutely right. I was not uncomfortable, I was nothing. And it was just because it was so cold and nasty. Totally gone.

Therapist: So it can be a real positive thing.

Officer: Oh, I have used it.

Therapist: When you dissociate, are you continuing to act in your body? Were you continuing to say things or do things...while you're over in another part of the room watching?

Officer: No. Not that much. It's more of a passive thing.

Therapist: Did you ever dissociate in your job in law enforcement so that it interfered with an arrest or made you afraid that you were going to lose your judgment?

Officer: No. It's been an asset. The only times it has happened is when I am being attacked by a man or men. I become completely cold and they can not hurt me. They may hit me really hard and think I will go down, but I'm still standing there. I don't feel the pain, so it has enabled me to be stronger in crisis situations.

Therapist: Have you dissociated in other situations?

Officer: When I exercised really hard. I ran a 50 mile race and really hurt my leg, but it didn't stop me from continuing the race. Several years ago, I set the Guinness World record for sit-ups. It was never published because three months later, somebody else did two more sit-ups in ten hours.

Therapist: How many sit-ups did you do?

Officer: I did 28,000 sit-ups with six minute breaks on the hour.

Counselor explaining a history of dissociation:

Therapist: When's the first time you remember dissociating?

Counselor: I don't remember the first time. My grandfather had abused me from the time I was a young child; I don't remember when that started either. (Her grandfather was a sexual sadist who physically, sexually and emotionally tortured her until she was 15 years old and he had a heart attack). My father read to me every night. My favorite book was <u>The Jungle Book</u>. (She loved her father and he did not know she was being abused). When my dad was working, I would read from the book on my own. I imagined myself running with the wolves in the jungles of India. So, when my grandfather would abuse me, I went to the jungle.

My uncle gave me a Tarzan book by Edgar Rice Burroughs. It was just the place my mind wanted to be because the real world was too awful. When I was in school, I was fascinated with the big maps that were attached to the wall above the chalkboard. It was like the real world was a big map that I could flip up and make disappear whenever I wanted to. And behind it-jungles and wild animals and a place where I was alone, with no other human in sight. It was safe.

Therapist: Did you ever dissociate when you were a teenager?

Counselor: Yes. I could continue to work in school or do whatever I needed to do while I was dissociating. No one ever knew when I did it, or when I came back. However, people were always saying that I was in my own little world. It was like I left the part of myself that could still talk and function, but that part of me had no feelings. I took all of my feelings and the rest of myself to the jungle. That way, no one could hurt me. I knew what was happening to the part I left. I could see and hear the things it was going through. But I couldn't feel anything so it didn't hurt and I was riding on the backs of elephants and was strong and brave and no one bothered me in the jungle, where I was King.

Therapist: How have you experienced the dissociation as an adult? **Counselor:** There has never been a time when I couldn't dissociate when I wanted to, except when you were tapping me (Tapping was part of MTP treatment). I was dissociating a good part of every day before you tapped me the first time. It dropped dramatically after that, but was in full force by the time I saw you the second time (Counselor lived 2000 miles from therapist, so there was over a year between treatments). Since the second block of treatment sessions, a month ago, I haven't done it much....maybe a couple of times during staff meeting, but it didn't last very long. I admit, it's a little harder for me to do it now.

Therapist: Did you know what you were doing was dissociating and did you know others were doing it?

Counselor: I didn't realize what I was doing until I went to graduate school for my Ph.D. I was ashamed because I did it, but I was glad that I could. It made me feel different, but it also made me feel safe.

Therapist: Did dissociating ever put you in danger or cause any problems for

you?

Counselor: Not that I know of for danger. It caused problems because I was always leaving when there was any kind of difficulty.

Dissociation occurring to an adult (associated with childhood trauma), can be triggered by various situations, feelings and thoughts, depending on the type of abuse that initially lead the victim to begin dissociating in childhood. For example, victims of violent physical abuse, often dissociate when someone becomes angry or aggressive, because that mirrors the behavior of their abuser. Those who were sexually abused may dissociate when someone gets too physically close to them or when they feel trapped. If the individual experienced physical, sexual, emotional and sadist abuse, there may be hundreds of triggers that cause them to dissociate.

Some individuals indicate that they initially believed that everyone could leave their body, as they did. When they discover that this is not true, they may feel powerful and very smart. Other individuals have just the opposite response. These individuals believe that their need to dissociate makes them defective and experience shame. The emotional response to dissociation may be related to the type of abuse which made it necessary, with abuse of multiple types, particularly abuse involving sexual abuse and sadism, being more likely to lead the victim to experience shame at dissociating.

Child abuse victims who learned to dissociate to avoid pain often continue to dissociate to avoid pain as adults. For example, these adults often refuse Novocain or other pain killers when having dental procedures that typically are very painful. Dentists say that they have numerous patients who refuse painkillers and, "they don't even flinch when I am doing very painful procedures".

Although dissociation helps the child to avoid pain, it can prevent an adult who continues to dissociate from using problem solving skills to change the response of others and themselves. For example, a husband who dissociates each time his wife becomes angry (because the anger of his abusive father triggered dissociation as a child) will not be able to work out the normal conflicts that arise in a marriage, making the probability of divorce quite high.

Although the routine use of dissociative responses by an adult with a history of childhood abuse and trauma can be quite disabling, there may be a large subset of adults who have found ways to use their ability to dissociate in a positive way.

Thor grew up in a home with an extremely violent father; his mother was passive and made little effort to protect him. Thor's father repeatedly and violently abused him, although he did not beat Thor's mother. Thor tried to stay away from his father as much as possible, however his father's rages were unpredictable and Thor had no control over when these would occur and how long they would last. To avoid these beatings, Thor spent a great deal of time at his grandparent's house; he viewed his grandparents as loving and nurturing. Thor reported that he began to dissociate. at age six, to deal with his father's brutal beatings. He experienced this dissociation as "like a telescope that is extended, enabling me to watch a scene from a distance. My father wanted me to cry; but when I dissociated, he couldn't make me cry, no matter how hard he hit me. I barely experienced pain. This was the way I was in control and I survived." Thor indicated that, as a child, he also dissociated in other threatening

situations or those that involved pain, such as having a tooth drilled.

As an adult, Thor joined an elite group of men who dealt with extremely critical situations faced by the military and law enforcement. (For example, SWAT, Military Specialized Forces, The Hostage Rescue Team). To become a member of these groups, try outs involved a series of tests, which, to most people, would seem quite brutal. These tests require a man to have such control over his body that he can endure and ignore pain, continue to operate with problem solving skills and focus in situations that would create intense disabling fear in the average man, stand or lie motionless for long periods of time, spend long periods of times in tight and uncomfortable places and reduce his pulse rate during assaults to ensure that he remains co-coordinated if firing his weapon is required.[1] Superb physical fitness was a necessity, requiring intense workouts that the average man would be unable to tolerate. Thor indicated that his ability to dissociate was an advantage in being accepted as a member of this group. Thor also indicated that throughout his life, when he was attacked or challenged by other men, he would immediately become completely focused, lose his perception of pain and continue fighting in circumstances that would make other men quit.

It is quite possible that many members of elite groups of specialized military and law enforcement groups whose job requires that they work in the most dangerous and threatening of situations have learned to use dissociation in a positive way, to perform a much needed service for the public and their country.

Clients who have successfully processed traumatic childhood experiences with MTP often indicate that they can no longer dissociate.

"When you reviewed my trauma history, I was out of my body the entire time. However, when you began to tap my shoulders and the drums were beating in my ears, I couldn't dissociate. You reviewed my trauma history and I had to stay in my body while you did this. Maybe this is why MTP worked. When previous therapists went over my history of abuse, I was not there and my feelings were dead."

Some clients are initially angry when they can no longer dissociate: "I was at the dentist, and as I have always done, told him I didn't need any Novocain. I have always been able to dissociate and have never felt any pain during dental procedures. He started drilling and I almost went through the roof. I tried to dissociate, but I couldn't. I was really angry at you for that."

The processing of traumatic memories which causes the dissociative response to decrease or disappear can be positive:

Therapist: "Can you still dissociate?"

Client: "I don't think so. I got in a confrontation with a taxi driver last week. In the past, I would have felt uncomfortable and I would have spaced out. But I stayed in my body and argued with him. It is really the new me."

In summary, some forms of dissociation appear to have developed to help humans deal with threat to survival and the pain of dying. However, experiences involving extreme forms of traumatic experiences, particularly child abuse, can cause the dissociative response to be used excessively by victims who no longer can tell the difference between a real threat and difficult or situations in which they need to remain in control and responsive and reactive.