

# Traumatic Stress and Motor Vehicle Accidents

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## Introduction

Researchers are looking more closely at motor vehicle accidents (MVAs) as a common cause of traumatic stress. In one large study, accidents were shown to be the traumatic event most frequently experienced by males (25%) and the second most frequent traumatic event experienced by females (13%) in the United States. Over 100 billion dollars are spent every year to take care of the damage caused by auto accidents. Survivors of MVAs often also experience emotional distress as a result of such accidents. Mental-health difficulties such as posttraumatic stress, depression, and anxiety are problems survivors of severe MVAs may exhibit. This fact sheet addresses important issues related to MVAs, including how many people experience serious MVAs, how many people develop MVA-related Posttraumatic Stress Disorder (PTSD) and other psychological reactions, what the risk factors are for MVA-related PTSD, and what kind of treatments help MVA-related PTSD.

## How many people experience serious motor vehicle accidents?

One unfortunate consequence of the high volume of commuter and personal travel in the U.S. is the number of accidents that result in personal injury and fatalities. In any given year, approximately 1% of the U.S. population will be injured in motor vehicle accidents. Thus, MVAs account for over 3 million injuries annually and are one of the most common traumas individuals experience.

## How many people develop MVA-related PTSD and other psychological reactions?

Research on individuals seeking treatment and individuals in the general population suggests that the majority of those who survive a serious MVA do not develop mental-health problems that warrant professional treatment. However, a substantial minority of MVA survivors suffer from mental-health problems, the most common of which are Posttraumatic Stress Disorder (PTSD), Major Depression, and Anxiety Disorders.

Studies of the general population have found that approximately 9% of MVA survivors develop PTSD. Rates are significantly higher in samples of MVA survivors who seek mental-health treatment. Studies show that between 14% and 100% of MVA survivors who seek mental-health treatment have PTSD, with an average of 60% across studies. In addition, between 3% and 53% of MVA survivors who seek treatment and have PTSD also have a mood disorder such as Major Depression. Finally, in one large study of MVA survivors who sought treatment, 27% had an anxiety disorder in addition to their PTSD, and 15% reported a phobia of driving.

## What are the risk factors for MVA-related PTSD?

Recent research has identified variables that have predictive value when trying to determine who might experience PTSD after a serious accident. The use of such research allows clinicians to identify individuals at risk for long-term mental-health problems secondary to their accident.

The research focusing on identifying at risk individuals has been directed at three sets of variables: characteristics about the individual that were present prior to the MVA, accident-related variables, and postaccident variables.

- Pre-accident variables such as poor ability to cope in reaction to previous traumatic events, the presence of a pre-accident mental-health problem (e.g., depression), and poor social support have all been linked to the development of PTSD following severe MVAs.
- With respect to accident-related variables, the amount of physical injury, potential life-threat, and loss of significant others have been predictive of the development of mental-health problems such as PTSD. That is, as the amount of physical injury and fear of dying increase, the chance of developing PTSD also increases.
- Postaccident variables that are predictive of PTSD following MVAs are: the rate of physical recovery from injury, the level of social support from friends and family, and the level of active reengagement in both work and social activities. To the extent that physical limitations will allow, survivors of MVAs should be encouraged to maintain as much of their pre-accident lifestyle as possible, with as much support from family and friends as possible. Such coping strategies appear to be linked with positive mental-health outcomes.

### **What treatments are available for MVA-related PTSD?**

One aspect of MVA-related PTSD that is different from PTSD caused by other traumas is the increased likelihood of being injured or developing a chronic pain condition following the trauma. As a result, many people who have been in an MVA present first to their primary care physicians for treatment and do not consider psychological treatment for some time. Unfortunately, studies have shown that of the people who develop PTSD and do not seek psychological treatment, approximately half continue to have symptoms for more than six months or a year. Therefore, it is important to identify the symptoms early on and seek appropriate psychological treatment.

A number of different treatment approaches have proven effective for MVA-related PTSD. Treatments include behavior therapy, cognitive therapy, and medications. In addition, it may be useful to work with a chronic pain specialist to help manage the physical pain caused by the injury. Sometimes these treatments are provided in conjunction with one another. Readers who are interested in more extensive information regarding treatment and provider contacts will find the websites listed below to be useful.

### **Additional Information**

Readers can find a full exposition of the personal and accident-related characteristics associated with poor mental-health outcomes after MVAs in an excellent book, *After the Crash*, by Blanchard and Hickling (1997). This book also explains a comprehensive approach to treatment for clinicians working with severe accident survivors.

#### **Suggested Readings on Psychosocial Research and Motor Vehicle Accidents**

Blanchard, E.B., & Hickling, E.J. (1997). *After the crash*. Washington, DC: American Psychological Association.

Blanchard, E.B., Hickling, E.J., Barton, K.A., Taylor, A.E., Loos, W.R., & Jones-Alexander, J. (1996). One-year prospective follow-up of motor vehicle accident victims. *Behaviour Research and Therapy*, 34, 775-786.

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Blanchard, E.B., Hickling, E.J., Taylor, A.E., & Loos, W.R. (1995). Psychiatric morbidity associated with motor vehicle accidents. *Journal of Nervous and Mental Disease, 183*, 495-504.

Bryant, R.A., & Harvey, A.G. (1995). Avoidant coping style and posttraumatic stress following motor vehicle accidents. *Behaviour Research and Therapy, 33*, 631-635.

Buckley, T.C., Blanchard, E.B., & Hickling, E.J. (1996). A prospective examination of delayed onset PTSD secondary to motor vehicle accidents. *Journal of Abnormal Psychology, 105*, 617-625.

Ehlers, A., Mayou, R.A., & Bryant, B. (1998). Psychological predictors of chronic Posttraumatic Stress Disorder after motor vehicle accidents. *Journal of Abnormal Psychology, 107*, 508-519.

Kuch, K., Cox, B.J., & Evans, R.J. (1996). Posttraumatic Stress Disorder and motor vehicle accidents: A multidisciplinary overview. *Canadian Journal of Psychiatry, 41*, 429-434.

Taylor, S., & Koch, W.J. (1995). Anxiety disorders due to motor vehicle accidents: Nature and treatment. *Clinical Psychology Review, 15*, 721-738