



What is Medical Trauma?

Overview

- ✓ Medical trauma is defined as a set of psychological and physiological responses to pain, injury, serious illness, medical procedures and frightening treatment experiences.¹
- ✓ Medical trauma can be viewed as an acute onset of a disrupted physiological system in which the ongoing threat is internal (i.e., the body) and may be long term or permanent (e.g., cancer treatment).² This differs from an external trauma (e.g., car accident) where once the event ends, the external threat ends.

What Aspects of Medical Events Might Be Psychologically Distressing?

- ✓ The nature of the illness or injury (e.g., sudden, life-threatening)³ and related treatment (e.g., intubation).^{4,5}
- ✓ Shock and loss of sense of control associated with diagnosis.^{3,6,7}
- ✓ Life-altering complications or unexpected medical intervention (e.g., emergency cesarean section).⁸
- ✓ Conditions of hospital environment (e.g., constant noise, frequent medical checks, sleep disruption).⁹
- ✓ Hallucinations caused by delirium (e.g., belief that staff are torturing patient).^{9,10}
- ✓ Perceived or actual mistreatment by medical providers (e.g., forced to receive unwanted intervention).^{9,11}

Medical Events and PTSD

- ✓ Per the *Diagnostic Statistical Manual (DSM-5)*, medical events must be “sudden, catastrophic events” to qualify as traumatic events and therefore qualify for a diagnosis of PTSD.¹²
- ✓ Posttraumatic stress symptoms related to medical events, regardless of PTSD diagnostic status, have been found to be related to psychosocial outcomes.¹³
- ✓ Conceptual models including the Integrative Trajectory Model of Pediatric Medical Traumatic Stress^{1,14} and the Enduring Somatic Threat model² have been developed to understand the unique psychological features of medical trauma that may not be captured by a PTSD diagnosis.

What Are the Symptoms of PTSD Resulting From Medical Trauma?

- ✓ Posttraumatic stress symptoms after medical trauma may present as:
 - Persistent intrusive thoughts or memories of aspects of the medical event (e.g., replaying the memory of getting the diagnosis).⁶
 - Significant distress when confronted with reminders of the medical trauma (e.g., medical appointments).
 - Disruptions in treatment adherence due to trauma-related avoidance.⁹
 - Overutilization of health care (e.g., health-related checking behaviors) related to hypervigilance.^{3,9,15}





How Common is PTSD Following Medical Trauma?

It is common and expected for patients to have some difficult reactions in the days or weeks following a medical trauma. These reactions will naturally decrease over time for most patients.

Children and Adolescents. An estimated 80% of ill or injured children and their families experience some traumatic stress reactions following a medical trauma. Between 20-30% of parents and 15-25% of children experience persistent traumatic stress.¹

Adults. Among adults, estimates of traumatic stress reactions vary depending on the type of event. Approximately one-third of traumatically injured patients experience PTSD or depression symptoms post-injury.¹⁶ Approximately 20-30% of ICU patients experience PTSD symptoms.⁹

How can PTSD Resulting from Medical Trauma be Addressed?

- ✓ Treatment for PTSD resulting from medical trauma should incorporate the same elements used in gold-standard PTSD treatments. Specific areas of focus may include:
 - In behavioral therapies, identifying and processing sensory memories (i.e., re-experiencing of physical sensations not clearly associated with a memory).⁹
 - In cognitive therapies, addressing appraisals related to changes to the body and physical ability, missed developmental milestones, identity and role disruptions, occupational functioning and changes in interpersonal functioning.^{7,9}
 - Integration of health and rehabilitation psychology principles such as:
 - Pain management strategies to accommodate new or exacerbated pain.
 - Expectation management strategies in collaboration with other providers (e.g., education, normalization) to support adjustment.
- ✓ The nature of medical trauma provides a unique opportunity for implementation of system-level prevention, assessment and early-intervention programs.
 - Trauma-informed care (i.e., acknowledgement of medical trauma and incorporation of knowledge into organizational culture, policies and procedures) may reduce risk for development of PTSD following medical trauma.¹⁷
 - Integrated behavioral health teams in medical care settings may help to minimize medical trauma or increase access to early intervention for PTSD related to medical trauma.^{6,13,18-20}

For further information check out:

- [Pediatric Medical Traumatic Stress Toolkit for Healthcare Providers](#) developed by the National Child Traumatic Stress Network for assessment tools and comprehensive treatment considerations.
- [Oxford Centre for Anxiety Disorders and Trauma's](#) Post-ICU PTSD Therapist Guide for treatment considerations unique to the experience of the ICU.
- [Managing the Psychological Impact of Medical Trauma](#) by Flaum Hall and Hall for a comprehensive overview of medical trauma and its consequences in adults.

