Stress hormone research is quickly becoming the next bastion of arguments in support of one element of non-economic damages: suffering. Suffering is the cognitive or affective response to the sensation of pain or any noxious stimulation. Certainly, one of the most arduous tasks for the plaintiff trial lawyer is translating intangible elements of damages, such as suffering, into quantifiable monetary awards.

For decades, medicine has recognized that the "Fight or Flight Response" or startle reflex—an innate self-defense mechanism that results in heightened awareness and optimum physical potential—causes profound changes in heart rate, respiration, and blood pressure through the release of certain “stress” hormones. Scientists are now homing in on the long-term effects of the fight or flight hormones. They have learned that the startle reflex results in measurable releases of the hormones cortisol and adrenaline, which can cause some individuals who experience traumatic events to develop chronic stress response. This is a condition in which the brain becomes overly-sensitive and reactive leading to neuropsychological, biochemical and intracellular changes throughout the body. The chronic stress related biochemical storm has been likened to a slow poisoning that has deleterious effects physically, psychologically and behaviorally.

The physical consequences of long-term stress hormone release may include an increased incidence of infection, cancer, heart attack, and stroke as well as development of autoimmune disorders and inflammatory diseases such as lupus, Crohn’s disease and rheumatoid arthritis. Long-term stress hormone release may also be a major factor
in the development of psychological conditions such as Post-Traumatic Stress Disorder (PTSD), Attention Deficit Hyperactive Disorder, Chronic Stress Reaction, Neurosensitization Syndrome, Anxiety Disorders, and Depression. Behavioral manifestations such as substance abuse, withdrawal from relationships, risky sexual behaviors, carelessness, distractibility, aggression or poor hygiene are other consequences that have been linked to chronic stress hormone release. 

There is no greater validation of the existence of a condition than when the medical community establishes treatment to prevent or alleviate it. The good news for the plaintiff's lawyer is that scientific evidence of the physical and psychological conditions that can be caused by suffering is beginning to surface. Several PTSD research studies are well underway—some with analysis and manuscripts due for publication within the next year.

One such study involves mice that receive an injection of the hormone corticosterone after being subjected to a mild electrical shock. "Corticosterone appears to enhance new memories that compete with fearful memory, thereby decreasing its negative emotional significance," said Dr. Craig Powell, senior author of the study. Though corticosterone is a hormone, it does not have the stimulating effects of those hormones that are released during the fight or flight response.

The same investigators are currently collaborating with the Dallas VA Medical Center in a spin-off study of veterans who have been diagnosed with PTSD. This study is designed to determine whether injections of a hormone can decrease the disorder's disabling impact on the veterans.

Kent State University also is conducting a pilot study, scheduled for completion in late 2009, that is looking into the prevention of PTSD in acute trauma victims through the administration of hydrocortisone within the first twelve hours after the trauma was suffered.
Though the science of suffering is truly in its infancy, research has definitively established a connection between the release of stress hormones and numerous physical, psychological and behavioral manifestations. The trial lawyer can use this authoritative evidence to define and validate the plaintiff's suffering, discredit the common malingering defense, and to educate jurors about suffering’s authenticity. Such evidence will draw the juror into the plaintiff’s experience and enhance the probability for a non-economic monetary award.


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