

Evaluating Psychological Injuries in Children and Adults related to Amputation

By: Jane K. McNaught, Ph.D.

Licensed Psychologist

Fellow, American Board of Forensic Examiners

Amputation is an injury involving loss of function, loss of sensation, and loss of body image. It is not surprising amputees often suffer psychological difficulties following such an event. Further, these psychological difficulties can also result in long term Post Traumatic Stress Disorder (PTSD) for the amputee. Often these psychological injuries and resultant PTSD can be difficult to explain to a jury. The forensic expert's presentation of psychological testing assessing potential PTSD is one part of proving or disproving damages. However, the forensic expert can better assist either the Defense or Plaintiff's attorney by addressing specific functions in the amputee that have been affected by the injury.

The following is an example of a case presented to me where the child lost two fingers on his dominant hand in a machinery accident. In addition to performing psychological testing, I also addressed the following specific aspects of the injury that further document psychological distress for the amputee.

ISSUES FOR EVALUATION

1. Physical activities that require five fingers

Basketball, baseball, and all ball-handling positions in football are examples of sports that require five fingers. Although he is able to throw a ball, the loss of his fingers will likely prevent the child from playing any of these sports competitively in high school or beyond. In addition, because the child injured his dominant hand, he will be unable to play sports that require a racquet or other type of hand-held instrument (e.g., tennis or golf). Even competitive swimming requires the use of all five fingers to cup the water in order to quickly propel the swimmer forward.

In addition, the playing of musical instruments also requires five fingers. Because of the accident and subsequent amputation, the child will be unable to play the piano or any other musical instrument. High-functioning computer keyboard skills also require the use of five fingers. While the child's loss of two fingers should not prevent him from developing basic keyboard skills, he is apt to type and perform tasks at a reduced speed. Art requiring fine motor skills (e.g., painting a picture) will also be more difficult for this child given the limited dexterity in his dominant hand.

2. Issues involving cause or effect of handedness and changes in handedness

The child continues to be right handed and has adapted to writing with his right hand. His penmanship is described as excellent. Strength and dexterity are apt to be problematic in the child's dominant hand because of the amputation. Finger digits two through five are located on our hands to work with the thumb. Our fingers come in contact with the thumb and palm to give our hands maximum dexterity and strength, creating grip patterns too numerous to count. The child's loss of his right hand fingers will dramatically decrease the gripping power in his dominant hand. While losing the second digit can be compensated for by the third finger, the child's loss of the second *and* third digit is a more significant impairment, since so many activities require the use of the thumb and second or alternatively third digit. This impacts the child's ability to perform everything from the delicate and intricate to the strenuous and forceful. This child is further at significant risk to develop frustration and eventual social withdrawal because of his inability to perform tasks at the same level as his peers.

Because this child has significant learning difficulties in reading as well as written comprehension, this child is less able to earn his living from motor skills, which has been his father's vocation. Because of the lost digits on his dominant hand, this child and later adult will likely experience difficulty in manual tasks. Prior to the accident, it appears manual dexterity was a significant area of strength for this child and could have assisted him in compensating for his learning problems. Given the amputation of his fingers, as he becomes an adult he is apt to have greater difficulty or find himself unable to operate certain machinery or grip the tools necessary to do farm work and other forms of manual labor. This will undoubtedly impact the child's later ability to support his family and result in feelings of inadequacy. Even everyday activities, such as picking up small objects and turning a doorknob, will be significantly more difficult for this child to do with his dominant hand.

3. Potential problems that may arise when the child becomes pubescent:

The degree of psychological difficulty associated with amputation generally increases, the older the child is when the injury occurs. Psychological challenges for children who experience amputations as young children, however, usually increase when children become more sensitive to peer acceptance and rejection in their teenage years. Adolescents experience a developmental need to appear and behave like their peers in order to feel accepted and part of their peer group. In cases of amputation, adolescents are most vulnerable to self-esteem issues, particularly as they become interested in dating. Sexuality is an area of anxiety for most amputees. A supportive response from their partner is essential, but even then, many amputees have difficulty seeing themselves as adequate

sexual partners and struggle to develop a healthy sexual identity. (Racy, 1989) In our culture, our hands and face are what we present first. An injury to the hand therefore has tremendous impact on body image.

4. Pertinent studies regarding the impact of disfigurement

Children who have experienced a life threatening, traumatic injury are at greater risk to develop depression and anxiety than other children. This is because children are typically avoidant and fearful about the conscious memories of a traumatic injury. Childhood victims of trauma often avoid thoughts, feelings, and conversations about the accident. Consequently such children are unable to process their emotions and memories of the traumatic injury and continue to experience overwhelming memories of the injury (Hashemi, et al.). These undisclosed feelings and fears result in anxiety and depression.

Children who have experienced amputation are also more likely to experience ongoing depression if they experience daily stressors related to the loss of their limb, or if they experience a lack of social support (Varni, J.W. et.al.). In this study, the lack of support from classmates, parents, and teachers were investigated and found to be predictors of depressive symptomology in children with acquired or congenital limb deficiencies. This child's pre-existing learning disabilities, in a number of areas along with his ADHD symptoms, only serve to exacerbate concerns about the child's social functioning. Already the child's teachers describe Charlie as having difficulties relating to peers. The amputation of his fingers coupled with his pre-existing learning and behavioral difficulties are also apt to continue to affect his ability to obtain social support from his peers. Consequently, he is at higher risk for anxiety and depression.