



### D6 Household Furniture Tip-Over Deaths of Young Children

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After attending this presentation, attendees will understand the role of medicolegal death investigations in identifying childhood deaths due to household furniture tip-overs.

This presentation will impact the forensic community by calling attention to household hazards that may be the cause of preventable childhood deaths.

Although many investigators have recognized that unsafe sleeping conditions such as bed sharing (co-sleeping) and/or compressible sleep surfaces play a causal role in many sudden, unexplained infant deaths, there is a dramatic increase in the incidence of accidental deaths when children reach the developmental stage of mobility. Accidental deaths in childhood result from falls, poisoning, drowning, fires/burns, transportation-related deaths, and deaths due to foreign body inhalation. The majority of these deaths occur in the child's residence, and many result from avoidable hazards in the home and/or lapses in supervision of the children by their caregivers, in some instances because of impairment of the caregivers due to exhaustion or substance abuse. Examples include poisonings resulting from a child having access to household products containing hazardous chemicals, or to objects left within the child's reach that could be swallowed, and deaths due to hyperthermia when children are inadvertently left in closed vehicles.

Although the majority of childhood accidental deaths in the home relate to readily recognizable domestic sources of danger such as drowning deaths due to inadequate barrier mechanisms preventing the child from having access to residential swimming pools, other hazards are less well recognized. Childhood deaths due to tip-overs of household furniture or appliances are uncommon. The Consumer Products Safety Commission (CPSC) has warned the public of the potential for injuries and deaths due to pieces of furniture or television sets falling on young children. However, the forensic literature contains little information on childhood deaths resulting from furniture tip-overs.

Nine childhood deaths that resulted from household accidents in which furniture or domestic appliances fell on the child will be presented to elucidate the causes of death in such rare but potentially preventable circumstances. Three of these deaths resulted from bedroom dressers falling onto a child, one from the tip-over of a kitchen stove, one from a lounge chair, and four from television sets. All but one child was less than five years old. The cause of death was attributed to blunt head trauma in three cases and chest and abdominal trauma in one. Four deaths were certified as asphyxia due to chest compression, with the weight of the heavy object impeding the child's breathing. The cause of death in the remaining case was attributed to a combination of asphyxia and blunt head trauma. In all nine cases the death could have been prevented by adequate anchoring of the piece of furniture or by closer supervision of the child.

Childhood deaths due to traumatic asphyxia are uncommon. In these circumstances, the determination of the cause and manner of death must be based predominately on the investigation of the scene and circumstances of death, since the physical findings at autopsy are few and nonspecific. The medicolegal death investigator, in collaboration with the investigating law enforcement agency, plays a key role in elucidating the cause and manner of death in such cases. These findings indicate that a thorough, multidisciplinary approach correlating the scene investigation with autopsy findings is essential in reducing the incidence of deaths due such domestic hazards.

#### **Death, Child, Furniture**