

CASE REPORT

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Death by Compaction in a Garbage Truck

ABSTRACT: We report on two deaths by compaction in a garbage truck that recently occurred in this county. In both cases, the victim apparently climbed into a recycling dumpster to sleep, and was emptied with the contents of the receptacle into a garbage truck. Subsequent compaction of the victim with the load led to death. We also discuss several similar fatalities that have been reported to the U.S. Consumer Product Safety Commission.

KEYWORDS: forensic science, compressional asphyxia, crush injuries, dumpster, recycling

This office recently examined two remarkably similar unusual deaths. In both cases, the decedent was apparently sleeping in a recycling dumpster when it was picked up by a garbage truck and the contents were compacted, crushing the victim in this process.

Very little information has been reported in the medical literature about this type of death. A letter in the *New England Journal of Medicine* in 1995 briefly mentions a case in which a 30-year-old man died in an identical manner (1). The only other reference to compaction by a garbage truck was a young man with "identity disorder" who jumped into a garbage truck and was asphyxiated by compression (2). A review of cases reported to the US Consumer Product Safety Commission (USCPSC) reveals that since 1991, there have been seven deaths that occurred due to garbage dumpsters (3).

While deaths of this sort are rare, they are both tragic and avoidable. The victim is likely to be homeless or transient and may consider a dumpster to be warm, dry, and relatively private. Early in the morning, while the person is asleep, the sounds of the garbage truck may not be heard until the dumping process is underway, at which point cries for help are unlikely to be heard by the driver. Alcohol, drugs, or mental illness may contribute to the decision to choose a dumpster for sleeping quarters. These same influences may well make it more difficult for the victim to escape the situation. It is likely that recycling dumpsters, being cleaner than ordinary trash dumpsters, are preferred sleeping quarters, and are therefore particularly high risk.

Case 1

The decedent was a 31-year-old male whose body was discovered in May at 10:30 AM by a garbage truck driver after dumping his load at a recycling facility. The body was found fully

clothed among a pile of cardboard and paper that had just been dumped. Interestingly, his watch had stopped at 5:56, on the date of his discovery, which is the presumed time and date of compaction.

Autopsy revealed multiple asphyxial and compressional injuries. There was marked congestion and edema of the face with ocular petechiae. Abrasions and contusions were present on the head, chest, abdomen, back and extremities. A large laceration was present on the left thigh. Multiple fractures were noted, all with associated soft tissue hemorrhage, including the left clavicle, multiple bilateral rib fractures with associated pleural lacerations, and multiple pelvic fractures with associated laceration of the urinary bladder. There was diffuse scalp and subgaleal hemorrhage without evidence of skull fracture, and soft tissue hemorrhage of the muscles of the back and neck. There was diffuse congestion of the thyroid gland, diffuse hemorrhage of the root of the tongue, and epiglottic petechiae. Focal epicardial hemorrhage, focal mucosal congestion of the stomach, and bilateral diffuse pulmonary hemorrhage were present. Radiographs supported the findings of multiple fractures. Toxicology revealed a vitreous alcohol of 0.17 g%, with an aortic blood alcohol of 0.12 g%.

The cause of death was ruled compressional asphyxia due to being crushed by a compactor in a garbage truck. Extensive investigation could not determine why the decedent was in the dumpster, and the manner of death was undetermined. The decedent was known to frequent bars in the vicinity of several of the dumpsters along the driver's route. He even had purportedly slept outdoors while highly intoxicated. However, the decedent was not a homeless person. In this instance, it is unknown whether he entered the dumpster to sleep or for other purposes.

Case 2

The decedent was a 39-year-old female who was found deceased in September at 8:30 AM by workers at a recycling plant amidst paper and cardboard on a conveyer belt. The body was fully clothed but without underwear, and was badly deformed with purple suffusion of the face.

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Received 6 Dec. 2001; and in revised form 6 April 2002; accepted 15 April 2002; published 21 Aug. 2002.

Autopsy revealed contusions and abrasions over most of the body, as well as multiple rib, spine, and pelvic fractures, dislocation of the left hip and dislocation of the skull from the cervical spine. There was a left hemothorax, with multiple lacerations and hemorrhage of the lungs. The internal organs were pale. There was a small hemorrhage of the tip of the tongue. The brain showed moderate cortical atrophy. Toxicology showed a vitreous fluid alcohol content of 0.34 g%. Blood could not be obtained.

Investigation revealed that the victim was homeless, and had claimed to have slept in the dumpster before. The dumpster was behind a bar that the decedent frequented and had been at that night. The cause of death was determined to be crushing injuries due to compaction in a garbage truck, with acute alcohol intoxication as a significant contributing cause. The manner of death was accidental.

Discussion

Fatal crushing injuries are not readily distinguishable from post-mortem crushing, and the possibility that the victims died earlier and were placed in the dumpsters must be considered. Sharp injuries could be recognized at autopsy, and radiographs would show a projectile, but blunt trauma or asphyxia would be difficult to recognize. There were no distinctive markings on either decedent that would correspond to either the compacting mechanism or another blunt instrument. There were also no markings on the neck that would suggest strangulation. However, in the absence of any distinctive findings, determining whether compaction was the cause of death or merely postmortem trauma is likely to be determined largely through the investigative process. In the first case, the decedent had allegedly slept outside before while intoxicated, and in the second case, the decedent was known to have slept in the dumpster before, and so it was considered most likely that they had chosen to enter the dumpsters.

A request for information from the US Consumer Product Safety Commission revealed several similar incidents listed in their National Injury Information Clearinghouse since 1991. Six cases are reported in which the victim was crushed when a dumpster was emptied and compacted. A seventh, slightly different, case was a 17-year-old male who died of asphyxia (complicated by alcohol intoxication) when covered by cardboard boxes in a recycling dumpster. The other victims ranged in age from 27 to 32, and all but one were male. Causes of death were compressional asphyxia, blunt force trauma, or crushing injuries. It was not possible to determine

whether alcohol or drugs were involved in the other cases. Information on whether the receptacles involved were recycling dumpsters was also unavailable for most of the cases. The case briefly mentioned in the *New England Journal of Medicine* was a 30-year-old male (1).

The incidence of sleeping in dumpsters is unknown. However, they provide a degree of warmth and dryness that may be better than sleeping in the open for those without an alternative. In both of our cases, the temperature had been in the 50s and it had rained overnight. The driver involved in one of our cases reported that he has seen people climb out of dumpsters several times. These deaths may be avoided by finding ways to impede access to dumpsters. Most dumpsters can be padlocked, for example, to prevent entry. This is inconvenient, however, for the owners of dumpsters and slows down the pickup process.

Many accidents like those described here are probably avoided when the potential victim wakes up and escapes the situation. Both of these victims had ingested significant quantities of alcohol prior to their deaths. It is likely that alcohol or drugs may impair the ability of the victim to save himself, and these should be screened for as possible contributory factors in such cases.

Both of the cases we report, and at least one of the cases reported to the CPSC, involved recycling dumpsters. Recyclable dumpsters may provide a cleaner, more acceptable alternative to a trash dumpster. Recycling containers should therefore be viewed as a particular safety hazard, and extra care should be taken to padlock these receptacles or otherwise prevent access.

References

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