There were 3,137 work-related crushing injuries in Michigan between 2013 and 2015. Eighty percent of the crushing injuries were in male workers and 85.2% in Caucasians. The age of injured workers varied from 16-83 years of age; the average age was 37 and the median age was 35. Eighty-four (2.7%) injured workers were ≤ 18 years of age and 70 (6.6%) were of Hispanic ethnicity.

For the years 2013 through 2015, the Bureau of Labor Statistics, the official source of work-related crushing injuries, which is based on employer reporting, reported 1,260 work-related crushing injuries in Michigan, which was only 40% of the crushing injuries that occurred in Michigan.


<table>
<thead>
<tr>
<th>Part of Body Injured</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016*</th>
<th>2017*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Limb</td>
<td>947</td>
<td>1,080</td>
<td>1,110</td>
<td>1,102</td>
<td>995</td>
</tr>
<tr>
<td>Lower Limb</td>
<td>850</td>
<td>900</td>
<td>950</td>
<td>1000</td>
<td>1050</td>
</tr>
<tr>
<td>Multiple and Unspecified Sites</td>
<td>1000</td>
<td>1050</td>
<td>1100</td>
<td>1110</td>
<td>1150</td>
</tr>
<tr>
<td>Trunk</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Face, Scalp, Neck</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Percentage: Upper Limb 72.9%, Lower Limb 21.1%, Multiple and Unspecified Sites 3.4%, Trunk 2.3%, Face, Scalp, Neck 0.3%

Lack of guards for pinch points is one of the causes of occupational crushing injuries.
Background

In September 2010, Michigan Department of Health and Human Services promulgated rules requiring health professionals and health facilities to report individuals with traumatic injuries, including crushing injuries, regardless of cause when requested by the State or a local health department. Michigan’s hospitals, Workers’ Compensation Agency, and Michigan’s Fatality Assessment Control and Evaluation program are the sources for occupational crushing injuries. The Occupational and Environmental Medicine Division at Michigan State University prepares periodic reports on work-related skull fractures, available at www.oem.msu.edu.

2013 - 2015 Results

- 3,137 work-related crushing injury incidents represent 3,131 individuals.
- Seventy-three percent of crushing injuries were to upper limb.
- The Primary Metal Manufacturing industry had the highest percentage of work-related crushing injuries (26.7%), followed by Construction (9.5%), and then Wood Product Manufacturing (7.9%).
- The Mining, Quarrying, and Oil and Gas Extraction industry had the highest rate of work-related crushing injuries (154.9 per 100,000).
- Two hundred and sixty-five (8.4%) individuals were hospitalized, and 2,411 (76.9%) were treated in the Emergency Department.
- MIOSHA cited 57 of the 77 companies investigated.

![Graph showingcause of crushing injury in Primary Metal Manufacturing Industry, Michigan 2013-2015](image)

*Cause of crushing injury was provided for 595 (85.7%) cases.*

Work-Related Crushing Injuries Narratives

- A male in his 30s sustained crushing injuries to his left thumb which included a partial degloving, as the result of his thumb being caught between two metal rollers of a gutter machine.
- A male in his 60s was hospitalized for seven days after a 9,000 lbs. bundle of steel hanging from a crane swung and crushed the patient’s right leg between it and another bundle of steel.
- A female in her 20s sustained a crushing injury, laceration and second degree burns to her left wrist after reaching to straighten an ice cream carton that was not properly aligned on the packaging line, when the machine closed on her hand.
- A female in her 50s was hospitalized for 16 days after her right foot was run over by a forklift; the patient sustained crushing and degloving injuries to her right foot.