This factsheet is a quick reference on demographics, length of hospital stay, and the health and well-being of children with burn injury.

The data in this factsheet are from the Burn Injury Model System National Database, a prospective longitudinal multicenter research study that examines the functional and psychosocial outcomes of children following burns. Researchers collect data at 6 months, 12 months, 24 months, and every 5 years after injury.

As of January 2024, the database includes information on 2,407 children (<18 years) with burn injury. For more information, visit http://www.msktc.org/burn.

The majority of children in the database are boys and Hispanic.
Children are most often burned by fire or flame.

The yearly average total body surface area burned for children varies and has ranged from 10% to 49% since 1994.

### Cause of Burn Injury

<table>
<thead>
<tr>
<th>Cause of injury</th>
<th>Number of participants</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire/flame</td>
<td>1,371</td>
<td>58%</td>
</tr>
<tr>
<td>Scald</td>
<td>640</td>
<td>27%</td>
</tr>
<tr>
<td>Hot object</td>
<td>85</td>
<td>4%</td>
</tr>
<tr>
<td>Grease</td>
<td>103</td>
<td>4%</td>
</tr>
<tr>
<td>Chemical</td>
<td>7</td>
<td>0%</td>
</tr>
<tr>
<td>Electricity</td>
<td>142</td>
<td>6%</td>
</tr>
<tr>
<td>Other burn</td>
<td>33</td>
<td>1%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,381</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>

The median length of stay in the hospital has ranged from 11 to 32 days since 1994.

### Extent of Injury

#### Total Percentage of Body Area Burned

![Graph showing the total percentage of body area burned from 1994 to 2023.]

#### Median Length of Stay in the Hospital

![Graph showing the median length of stay in the hospital from 1994 to 2023.]

*Children are most often burned by fire or flame.*

*The yearly average total body surface area burned for children varies and has ranged from 10% to 49% since 1994.*
The PROMIS-25 is a measure that assesses pediatric mental and physical health by measuring things like anxiety, depression, and physical function. Scores of 50 on PROMIS-25 domains represent scores in a combined sample of children from the general population and those with chronic illnesses. The BMS began collecting PROMIS-25 data in 2015.

On average, pain does not seem to interfere with activities for pediatric burn survivors.

Peer relationships are an important indicator of social health in children and youth. Our sample reports peer relationship scores similar to the PROMIS sample, indicating good relationships with friends and peers in spite of burn injury.
Understanding the mental health of children with burn injuries is also important. On average, our sample reports anxiety and depression levels lower (i.e., better) than the PROMIS sample, indicating anxiety and depression are not a big problem for many pediatric burn survivors.

The BMS National Data and Statistical Center currently supports the four model system sites funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) shown below:*

Boston-Harvard Burn Injury Model System, Boston, MA
North Texas Burn Rehabilitation Model System, Dallas, TX
Southern California Burn Model System, Los Angeles, CA
Northwest Regional Burn Model System, Seattle, WA

*Johns Hopkins Burn Model System in Baltimore, Maryland, was funded from 1993 to 2012; the Pediatric Burn Injury Rehabilitation Model System in Galveston, Texas, was funded from 1998 to 2022.

Source
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