NSCISC
National Spinal Cord Injury Statistical Center
Spinal Cord Injury Model System

Recent Trends in Causes of Traumatic Spinal Cord Injury

2025 SCI Data Sheet

Introduction

This Data Sheet provides a breakdown in causes of traumatic spinal cord injury (tSCI) that occurred between 2015 through 2024. During that timeframe, there were 7,280 (N) persons enrolled in the National Spinal Cord Injury Database.

Vehicular accidents accounted for 2,709 (37.21%) of traumatic spinal cord injuries and ranks 1st in causes of spinal cord injury.

Vehicular Crushes

24.41%	N=1777	Auto (includes cars, jeeps, trucks, dune buggies, and buses)
6.99%	N=509	Motorcycle (includes 2-wheeled, motorized vehicles)
3.06%	N=223	Bicycles (includes bicycles, tricycles and unicycles)
1.55%	N=113	All-Terrain (includes both 3-wheeled and 4-wheeled)
0.23%	N=17	Aircraft (includes fixed-wing and rotating-wing)
0.22%	N=16	Snowmobile
0.16%	N=12	Boat
0.58%	N=42	Other vehicular, unclassified (included tractor, bulldozer, go-cart, steamroller, train, road grader and forklift)

Falls accounted for 2,347 (32.24%) of traumatic spinal cord injuries and ranks 2nd in causes of spinal cord injury

Falls

7.77%	N=566	Fall on same level (includes slipping, tripping and stumbling)
5.56%	N=405	Fall on and from stairs and steps
3.93%	N=286	Fall from, out of, or through building or structure
3.38%	N=246	Other slipping, tripping, stumbling and falls (includes fall from or off toilet, fall in or into shower or empty bathtub, and fall on same level due to stepping on an object)
2.10%	N=153	Fall on and from ladder
1.59%	N=116	Fall from one level to another
1.13%	N=82	Fall from tree
1.00%	N=73	Fall from bed
0.76%	N=55	Fall due to ice and snow
0.54%	N=39	Fall from chair
0.51%	N=37	Fall on and from scaffolding
0.41%	N=30	Non-Recreational fall, jump or diving into water
0.33%	N=24	Fall from other furniture other than chair or bed
0.19%	N=14	Intentional self-harm by jumping from a high place
0.51%	N=37	Other (includes fall from cliff, fall on and from playground equipment, fall on same level due to collision with another person, fall from non-moving wheelchair, and fall while being carried/supported by other person)
1.13%	N=82	Unspecified falls
1.40%	N=102	Unknown type of falls

Acts of violence accounted for 1,118 (15.36%) of traumatic spinal cord injuries and ranks 3rd in causes of spinal cord injury.

Violence

14.26%	N=1038	Gunshot wounds
0.65%	N=47	Person-to-Person (includes assault with a blunt object and falls as a result of being pushed)
0.45%	N=33	Other penetrating wounds (includes explosion, stabbing and impalement)

Sports & recreational activities accounted for 558 (7.66%) of traumatic spinal cord injuries and ranks 4th in causes of spinal cord injury.

Sports and Recreation

3.39%	N=247	Diving
0.91%	N=66	Snow skiing
0.49%	N=36	Winter sports (includes sled, snow tube, toboggan, ice hockey, and snow- boarding)
0.52%	N=38	Surfing (includes body surfing)
0.38%	N=28	Horseback riding
0.30%	N=22	Air sports (includes parachuting, hang gliding and para-sailing)
0.21%	N=15	Trampoline
0.21%	N=15	Football
0.10%	N=7	Wrestling
0.10%	N=7	Gymnastics (includes all gymnastic activities other than trampoline)
0.05%	N=4	Field sports (includes field hockey, lacrosse, soccer, and rugby)
0.05%	N=4	Skateboarding
0.04%	N=3	Water skiing
0.03%	N=2	Baseball/Softball
0.03%	N=2	Basketball and Volleyball
0.01%	N=1	Rodeo (includes bronco/bull riding)
0.00%	N=0	Track and field (includes pole vault, high jump, etc.)
0.84%	N=61	Unclassified (includes auto racing, glider kite, slide, swimming, bungee jumping, scuba diving, rollerblading, jet-skiing, cheerleading, etc.)

548 (7.53%) of traumatic spinal cord injuries were a result of other causes.

Other

3.74%	N=272	Medical/ Surgical complication
1.94%	N=141	Hit by falling/ flying object
1.11%	N=81	Pedestrian
0.74%	N=54	Other unclassified (includes lightning, kicked by an animal, machinery accidents)

About the National Spinal Cord Injury Database

The Spinal Cord Injury Model Systems was created in 1970 as a prospective longitudinal multicenter study of demographics and the use of services by people with traumatic spinal cord injury in the United States. The National SCI Database was created in 1973, and the National Spinal Cord Injury Statistical Center (NSCISC), located at the UAB Department of Physical Medicine and Rehabilitation, supports and directs the collection, management and analysis of the National SCI Database, which is the world's largest and longest tSCI research database. The database contained information on 37,866 persons who sustained traumatic spinal cord injuries through 2024. This data sheet does not include the 16,175 people who were added to the SCI Database registry due to not fully qualifying for follow-up.

Since 1973, 31 federally funded SCI Model Systems and 5 Form II (follow-up) centers have contributed data to the National SCI Database. To ensure comparability of data acquired over time by personnel in various centers, rigid scientific criteria have been established for the collection, management and analysis of information entered into the database. Additional quality control procedures are also in place to further enhance the reliability and validity of the database.

National SCI Statistical Center
515 Spain Rehabilitation Center
1717 6th Avenue South
Birmingham, AL 35233-7330

For statistics: 205-934-3342
For Business: 205-934-3320
TDD: 205-934-4642
FAX: 205-934-2709
E-mail: NSCISC@uab.edu
Website: uab.edu/NSCISC

UAB
The University of Alabama at Birmingham.

Citation: National Spinal Cord Injury Statistical Center, Recent Trends in Causes of Traumatic Spinal Cord Injury. Birmingham, AL: University of Alabama at Birmingham, 2025.