

# Recent Trends in Causes of Spinal Cord Injury



2019 SCI Data Sheet

## Introduction

This Data Sheet provides a category breakdown for causes of spinal cord injury that occurred between 2010 and 2018. During that timeframe, there were 6,427 (N) persons enrolled in the National Spinal Cord Injury (SCI) Database.

### **Vehicular Crushes**

25.32%	N=1627	Auto (includes cars, jeeps, trucks, dune buggies, and buses)
7.16%	N=460	Motorcycle (includes 2-wheeled, motorized vehicles)
3.35%	N=215	Bicycles (includes bicycles, tricycles and unicycles)
1.56%	N=100	All-Terrain (includes both 3-wheeled and 4-wheeled)
0.26%	N=17	Aircraft (includes fixed-wing and rotating-wing)
0.23%	N=15	Snowmobile
0.14%	N=9	Boat
0.51%	N=33	Other vehicular, unclassified (included tractor, bulldozer, go-cart, steamroller, train, road grader and forklift)

Falls accounted for
2,001 (31.13%) of
spinal cord injuries,
which ranks 2 <sup>nd</sup> in
causes of spinal cord
injury

F	al	ls
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6.33%	N=407	Fall on same level (includes slipping, tripping and stumbling)
5.29%	N=340	Fall on and from stairs and steps
4.12%	N=265	Fall from, out of, or through building or structure
3.41%	N=219	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)
2.12%	N=136	Fall on and from ladder
1 91%	N=123	Fall from one level to another

1.91%	N=123	Fall from one level to and
1.31%	N=84	Fall from tree
0.75%	N=48	Fall from bed
0.68%	N=44	Fall due to ice and snow

0.64% N=41 Fall on and from scaffolding0.64% N=41 Non-Recreational fall, jump or diving into water

0.37% N=24 Fall from chair

0.36% N=23 Intentional self-harm by jumping from a high place
 0.30% N=19 Fall from other furniture other than chair or bed
 0.42% N=27 Other (includes fall from cliff, fall on and from place)

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)

1.70% N=109 Unspecified falls 0.79% N=51 Unknown type of falls

Acts of violence	
accounted for 871	
(13.55%) of spinal	
cord injuries, which	
ranks 3rd in causes of	of
spinal cord injury.	

# **Violence**

12.20%	N=784	Gunshot wounds
0.95%	N=61	Person-to-Person (includes assault with a blunt object and falls as a result of being
		pushed)
0.40%	N=26	Other penetrating wounds (includes explosion, stabbing and impalement)

Sports & recreational
activities accounted for
551 (8.57%) of spinal
cord injuries, which
ranks 4th in causes of
spinal cord injury.

Sports	and Rec	reation
3.52%	N=226	Diving
0.93%	N=60	Snow skiing
0.65%	N=42	Surfing (includes body surfing)
0.62%	N=40	Winter sports (includes sled, snow tube, toboggan, ice hockey, and snow-boarding)
0.36%	N=23	Horseback riding
0.33%	N=21	Air sports (includes parachuting, hang gliding and para-sailing)
0.26%	N=17	Football
0.25%	N=16	Trampoline
0.17%	N=11	Wrestling
0.14%	N=9	Gymnastics (includes all gymnastic activities other than trampoline)
0.14%	N=9	Field sports (includes field hockey, lacrosse, soccer, and rugby)
0.09%	N=6	Skateboarding
0.08%	N=5	Water skiing
0.08%	N=5	Baseball/Softball
0.06%	N=4	Rodeo (includes bronco/bull riding)
0.06%	N=4	Basketball and Volleyball

528 (8.22%) of spinal cord injuries were a result of other causes.

### Other

0.82%

0.00% N=0

N = 53

4.53% N=291 Medical/ Surgical complication
1.91% N=123 Hit by falling/ flying object
1.14% N=73 Pedestrian

0.64% N=41 Other unclassified (includes lightning, kicked by an animal, machinery accidents)

Unclassified (includes auto racing, glider kite, slide, swimming, bungee jumping,

Track and field (includes pole vault, high jump, etc.)

scuba diving, rollerblading, jet-skiing, cheerleading, etc.)

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# About the National Spinal Cord Injury Statistical Center and Database

The National Spinal Cord Injury Statistical Center (NSCISC) is located at the UAB Department of Physical Medicine and Rehabilitation. NSCISC supports and directs the collection, management and analysis of National SCI Database, which is the world's largest and longest SCI research database.

The National SCI Database has been in existence since 1973 and currently captures data from an estimated 6% of new SCI cases in the U.S. As of March 2019, the database contained information on 33,782 persons who sustained traumatic spinal cord injuries. To assure comparability of data acquired 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.



Since its inception, 29 federally funded SCI Model Systems have contributed data to the National SCI Database. There are currently 14 SCI Model Systems contributing data, with an additional 5 subcontract Centers collecting Form II (follow-up) data. For a complete list, go to <a href="http://www.msktc.org/sci/model-system-centers">http://www.msktc.org/sci/model-system-centers</a>.



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