

This fact sheet is a quick reference on demographics and the use of services by people with spinal cord injury (SCI).

The National SCI Database is a prospective longitudinal multicenter study that captures data from an estimated 13% of new SCI cases in the U.S. from 28 federally funded SCI Model Systems since 1973. The database has demographic and condition status data through 2013 for 29,764 people with SCI.

*Incidence and prevalence statistics are estimates obtained from several studies. These statistics are not derived from the National SCI Database. All the remaining statistics in this fact sheet are solely based on data from the National SCI Database. Page 1 statistics focus on the new injuries that occurred since 2010. Page 2 statistics are about long-term outcomes, analyzing baseline and follow-up data from all database participants since 1973.

Presently, there are 14 systems and 5 Form II centers sponsored by the National Institute on Disability and Rehabilitation Research, Office of Special Education and Rehabilitative Services, U.S. Department of Education. For a complete list, please visit [SCI Model System Centers](#)

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Incidence

It is estimated that the annual incidence of SCI, not including those who die at the scene of the accident, is approximately 40 cases per million population in the U.S. or approximately 12,500 new cases each year, given the current population size of 313 million people in the U.S.

Prevalence

The number of people in the U.S. who are alive in 2014 who have SCI has been estimated to be approximately 276,000 persons, with a range from 240,000 to 337,000 persons.

Age at Injury

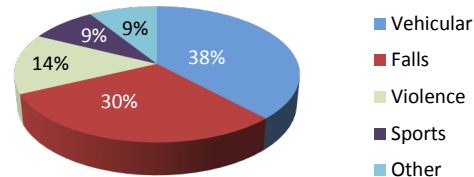
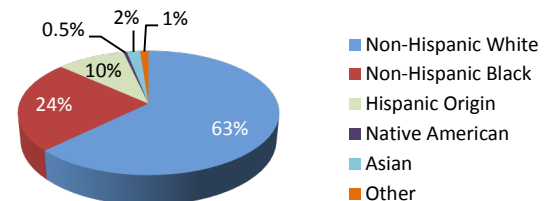
The average age at injury has increased from 29 years during 1970s to 42 years since 2010.

Gender

Approximately 79% of spinal cord injuries occur among males.

Race/Ethnicity

Currently, about 24% of spinal cord injuries occur among blacks, which is higher than the proportion of blacks in the general population (12%).



Etiology

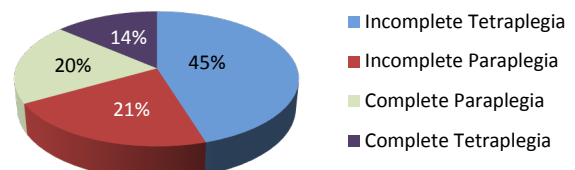
Vehicle crashes are the leading cause of injury, followed by falls, acts of violence (primarily gunshot wounds), and sports.

Length of stay

Days hospitalized in the acute care unit have declined from 24 days in the 1970s to 11 days since 2010. Substantial downward trends are also noted for days in the rehabilitation unit (from 98 to 36 days).

Neurologic level and extent of lesion

The most frequent neurologic category is incomplete tetraplegia followed by incomplete paraplegia, complete paraplegia, and complete tetraplegia. Less than 1% of persons experienced complete neurologic recovery by hospital discharge.



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Marital status

More than half of persons with SCI are single/never married when injured. The percentage of persons who are married slowly increases as the years post-injury increase, as does the divorce rate.

Status (%)	At injury	Year 1	Year 10	Year 20	Year 30
Single	51.8	50.8	41.8	34.8	29.6
Married	32.6	31.9	33.4	35.9	39.7
Divorced	9.4	11.2	19.2	24.2	24.9

Occupational status

At one year after injury, 12% of persons with SCI are employed, and by 20 years post-injury, about one third are employed.

Status (%)	At injury	Year 1	Year 10	Year 20	Year 30
Employed	57.9	12.1	28.1	34.9	33.1
Student	15.5	16.3	7.5	2.8	0.7

Lifetime costs

The average yearly health care and living expenses and the estimated lifetime costs that are directly attributable to SCI vary greatly according to severity of injury. These figures do not include any indirect costs—such as losses in wages, fringe benefits, and productivity, which average \$70,849 per year in November 2013 dollars—but vary substantially based on education, severity of injury, and pre-injury employment history.

Severity of Injury	Average Yearly Expenses (in November 2013 dollars)		Estimated Lifetime Costs by Age At Injury (discounted at 2%)	
	First Year	Each Subsequent Year	25 years old	50 years old
High Tetraplegia (C1–C4) AIS ABC	\$1,048,259	\$182,033	\$4,651,158	\$2,556,197
Low Tetraplegia (C5–C8) AIS ABC	\$757,459	\$111,669	\$3,398,426	\$2,090,336
Paraplegia AIS ABC	\$510,883	\$67,677	\$2,274,396	\$1,492,617
Motor Functional at Any Level AIS D	\$342,112	\$41,554	\$1,553,878	\$1,096,770

Data Source: Economic Impact of SCI published in the journal *Topics in Spinal Cord Injury Rehabilitation*, Volume 16, Number 4, in 2011.

Life expectancy is the average remaining years of life for an individual. Life expectancies for persons with SCI are still significantly below life expectancies for those without SCI and have not improved since the 1980s. Mortality rates are significantly higher during the first year after injury than during subsequent years, particularly for severely injured persons.

Life expectancy (years) for post-injury by severity of injury and age at injury											
For persons who survive the first 24 hours						For persons surviving at least 1 year post-injury					
Age at Injury	No SCI	AIS D—Motor Functional at Any Level	Para	Low Tetra (C5–C8)	High Tetra (C1–C4)	Ventilator Dependent Any Level	AIS D—Motor Functional at Any Level	Para	Low Tetra (C5–C8)	High Tetra (C1–C4)	Ventilator Dependent Any Level
20	59.0	52.3	44.6	39.6	35.3	18.8	52.7	45.1	40.3	36.6	25.1
40	40.1	33.9	27.2	23.1	19.7	8.5	34.2	27.7	23.7	20.7	12.4
60	22.7	17.6	12.7	9.9	7.8	2.0	17.9	13.0	10.3	8.4	3.8

Cause of death: Persons enrolled in the National SCI Database since its inception in 1973 have now been followed for 40 years after injury. During that time, the causes of death that appear to have the greatest impact on reduced life expectancy for this population are pneumonia and septicemia. Mortality rates are declining for cancer, heart disease, stroke, arterial diseases, pulmonary embolus, urinary diseases, digestive diseases, and suicide. However, these gains are being offset by increasing mortality rates for endocrine, metabolic and nutritional diseases, accidents, nervous system diseases, musculoskeletal disorders and mental disorders. There has been no change in the mortality rate for septicemia in the past 40 years, and only slight improvement in mortality due to respiratory diseases.

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Education

Over half of persons with SCI are high school graduates at time of injury. Level of education slowly increases over post-injury years.

Education (%)	At injury	Year 1	Year 10	Year 20	Year 30
High school only	51.5	54.2	51.4	46.4	43.7
College or higher	10.3	11.6	21.3	29.6	36.7

Re-hospitalization

About 30% of persons with SCI experience one or more hospitalizations during a 12-month period. Among those re-hospitalized, the length of hospital stay averages about 23 days.

Diseases of the genitourinary system are the leading cause of re-hospitalization, followed by disease of the skin. Respiratory, digestive, circulatory, and musculoskeletal diseases are also common causes