THE JOSEPH GROH FOUNDATION

A Beacon of Hope

The Lighthouse- From our Founder Joe Groh

Welcome to the Fall edition of The Lighthouse! It is the best time of year in North Texas. Our temperatures are generally in the 70s and the leaves are changing color. We will reach peak color just before Thanksgiving. And yes, leaves do actually change color in Texas!

Picture taken at a park in Farmers Branch (DFW suburb)

The Service Nation Topgolf Event was held in Las Vegas in late October, and raised enough money to be able to help three or four grant recipients. Thank you to all the contractors and vendors who participated in that event! Speaking of golf, all of our dates are set for next year, and we're excited to introduce a new location for our Dallas Tournament in May. You'll find more details in this issue. Also in this issue, I will share a couple of articles about the next phase of treating spinal cord injuries.

Throughout history people have dreamed of a cure for spinal cord injuries, and until now that has remained but a dream. One article will discuss medical professionals in Israel recently announced they will soon perform a surgery representing an actual cure for spinal cord injuries. Following that is an article about the shocking femoral frigidity among individuals with spinal cord injuries. According to a recent study, 25% to 46% of people with chronic spinal cord injuries will suffer a lower extremity fracture during their lifetime.

The *Someone You Should Know* feature is an update about Travis Roy. He was paralyzed 11 seconds into his first shift as a hockey player for Boston College and went on to establish the Travis Roy Foundation. Finally, your favorite column (or at least mine) – *A Day in the Life*. Enjoy!

Inside this issue

2026 Golf.....2

An Acute Cure.....3

Lower Extremity Fracture.....4

NSCISC Facts and Figures.....5-6

Someone You Should Know....7

A Day in the Life.....8

Business Partners.....9

2026 Golf with the Foundation

2026 golf tournament dates for the Foundation have been announced, see below:

Dallas – Monday, May 4
Eldorado Country Club, McKinney, Texas

Minneapolis – Monday, July 13
The Links at Northfork, Ramsey, Mn

Chicago – Thursday, September 24
Seven Bridges GC, Woodridge, Illinois

Dallas Golf Tournament

El Dorado Country Club Fairway

We are delighted to announce that the 2026 Dallas Golf Tournament will be held at El Dorado Country Club in McKinney, conveniently located near I 75 and Eldorado Parkway. It is a private facility established in 1981 and designed by Gary Roger Baird. Signature features include tree-lined fairways, two lakes and challenging, sloped greens.

It is an excellent course for best ball teams to play strategic golf. Following the tournament, we will present the latest in Foundation news during dinner.

The change in venue for this tournament was due to a new management company at the previous facility and other subsequent changes that made it unsuitable for our tournament.

Visit josephgrohfoundation.org to learn more about our upcoming events.

Dallas Golf Tournament Sponsor Opportunities

Title Sponsor – $10,000: 16 golfers, tournament naming rights, corporate logo on memento, unlimited additional golfers ($150 each), recognition on sponsor banner, website for 1 year, and multiple course recognitions.

Platinum Sponsor – $5,000: 12 golfers, unlimited additional golfers ($150 each), display table on course, recognition on sponsor banner, website for 1 year, and multiple course recognitions.

Gold Sponsor – $2,500: 4 golfers, unlimited additional golfers ($225 each), sponsor banner listing, website for 6 months, and course recognitions.

Silver Sponsor – $1,500: 2 golfers, 2 additional golfers ($250 each), sponsor banner listing, website for 3 months, and course recognitions.

Bronze Sponsor – $1,000: 1 golfer, 3 additional golfers ($165 each), sponsor banner listing, and course recognitions.

Dinner Sponsor – $3,500: 8 golfers, unlimited additional golfers ($225 each), dinner display table sign, website for 1 year, and course recognitions.

Lunch Sponsor – $3,500: 4 golfers, unlimited additional golfers ($225 each), lunch display table sign, website for 1 year, and course recognitions.

Keg Sponsor – $1,500: 2 kegs at lunch, on course, and dinner, 2 golfers, 2 additional golfers ($250 each), sponsor banner listing, website for 3 months, and course recognitions.

Award Sponsor – $1,500: 2 golfers, 2 additional golfers ($250 each), sponsor banner listing, website for 3 months, and course recognitions.

Hole Sponsor – $250 per hole: Acknowledgment with signage on the course.

An Actual Cure for Spinal Cord Injuries

The Times of Israel is reporting the first ever surgery whose goal is not to improve the outcome from a spinal cord injury – it is to actually cure it! The technology was developed at Tel Aviv University, then was commercialized through Matricelf (an Israeli biotechnology firm) under a licensing agreement with Tel Aviv University's technology transfer company, Ramot.

The innovation began about three years ago, when the lab at Tel Aviv University engineered a personalized three-dimensional human spinal cord in the laboratory. The findings published in the peer reviewed journal *Advanced Science*, showed that mice with chronic paralysis regain mobility after receiving the engineered implants.

The Israeli Health Ministry has approved implantation of a spinal cord engineered from human cells. A Tel Aviv University professor said his research team is now able to engineer a spinal cord that functions exactly like a natural one by implanting 3D engineered tissue into the damaged area. The procedure begins with blood cells from the patient, which are reprogrammed into stem cell-like cells capable of becoming any cell type.

Tissue is also collected into which the stem-like cells develop into a spinal cord structure. This engineered tissue is then implanted, replacing scarred areas and reconnecting the nervous system. Following that, fusion occurs that ends paralysis.

While experimental therapies including stem cells and robotic devices are being explored, no treatment yet reliably restores full spinal cord function. It almost sounds too good to be true, but the team will be selecting its first patient in coming weeks. According to the professor whose research team developed this technology, "The technology was developed here in Israel, and the first ever surgery will be performed in Israel with an Israeli patient."

Accomplishing this will undoubtedly become a source of national pride. Testing in mice showed that even mice which had chronic paralysis could walk, even scamper again after surgery. The success rate with these mice was 80%, and for mice with recent or short-term paralysis the success rate was 100%.

For more on this jaw-dropping, game changing technology read the article:
https://www.timesofisrael.com/in-bid-to-cure-paralysis-israeli-researchers-plan-innovative-spinal-cord-implant/

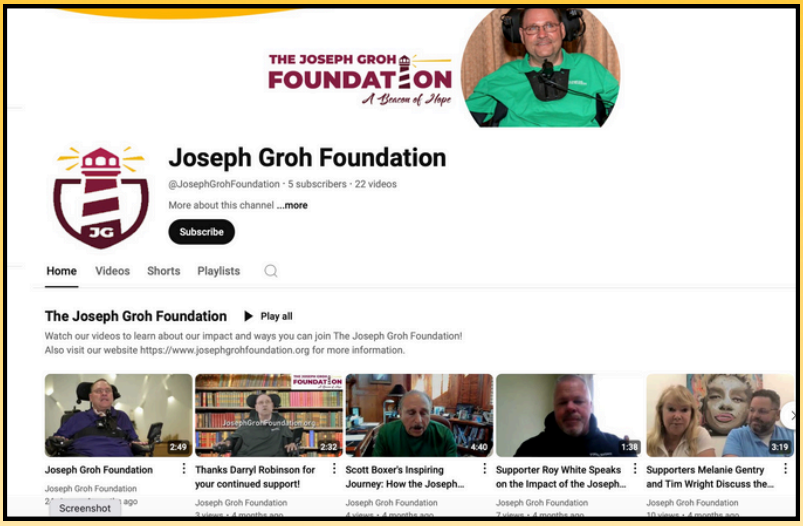
Lower Extremity Fractures in Spinal Cord Injury Patients

Individuals with spinal cord injury (SCI) experience rapid and profound bone loss below the level of injury, predisposing them to fragility fractures. According to an article published in *Cureus Journal of Medical Science*, femoral fractures account for up to 61% of lower limb fractures in the SCI population. Risk factors include age, time since injury, motor-complete injuries, and low bone mineral density (BMD). Loss of BMD occurs rapidly after SCI and plateaus 2 to 5 years post injury. Preventive strategies include early BMD assessment, optimization of vitamin D and calcium, weight management strategies and the use of certain pharmacological agents.

In most European countries, the annual incidence of traumatic spinal cord injuries is uniformly around 20 cases per million people, with few exceptions. In the United States, that number is more like 55 cases per million people (See the latest US statistics from NSCISC on the following pages). The difference is due primarily to higher rates of motor vehicle accidents and sports injuries in the US. It has been well documented that the BMD of patients with SCI decreases rapidly below the level of injury, at the rate of 1% per week within the first months from injury.

This rapid loss of BMD predisposes patients to fractures caused by low energy trauma which significantly impacts the morbidity and mortality of patients with SCI. According to a recent study, 25% to 46% of people with chronic SCI will suffer a lower extremity fracture during their lifetime. Motor complete injury (Injury completeness levels ASIA A-B) was significantly associated with fragility fractures in quadriplegic patients, but not with paraplegics. Wheelchair and transfer related activities were highly associated with fragility fractures and should be a focus for the prevention of fractures in SCI patients. Depending on the level and severity of injury completeness, a femoral fracture might present with pain or be asymptomatic due to a lack of pain sensation. In that case, healthcare providers and patients should be vigilant for signs like excess motion at the fracture site, increased spasticity due to pain and autonomic dysreflexia (Rapid increase in blood pressure levels – sometimes to dangerous levels).

Femoral fractures greatly diminish the quality of life in chronic SCI patients by delaying rehabilitation and further limiting mobility, thereby impeding vocation and avocation. That is why prevention is key. Optimizing calcium intake and vitamin D coupled with weight-bearing therapies (passive standing) should be utilized. Assistive devices including standing frames, standing wheelchairs and exoskeletons can be used. Functional electrical stimulation (FES) is another proven assistive and rehabilitative technology device that have been shown to improve BMD. For all patients living with chronic SCI, the importance of timely screening and osteoporosis treatment cannot be understated. To see this complete article, go to: https://www.cureus.com/articles/402241-fragility-fractures-of-the-femur-in-spinal-cord-injury-patients#!/



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

Traumatic Spinal Cord Injury Facts and Figures at a Glance

2025 SCI Data Sheet

The Spinal Cord Injury Model Systems was created in 1970 as a prospective longitudinal multicenter study on demographics and the use of services by people with traumatic spinal cord injury (tSCI) in the United States.

This data sheet is a quick reference on demographic and condition status for 37,866 people with tSCI collected through 2024 by 31 federally funded SCI Model Systems and 4 Form II (follow up) centers and entered into the National SCI Database. 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.

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515 Spain Rehabilitation Center
1717 6th Avenue South
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Website: uab.edu/NSCISC

Incidence

The 2024 population size in the United States was estimated to be about 341 million people. The most recent estimate of the annual incidence of traumatic spinal cord injury (tSCI) is approximately 54 cases per one million people in the United States, which equals about 18,421 new tSCI cases each year. New tSCI cases do not include those who die at the location of the incident that caused the tSCI.

- **Data Source:** Jain NB, Ayers GD, Peterson EN, et al. Traumatic spinal cord injury in the United States, 1993-2012. JAMA. 2015;313(22):2236-2243.

Prevalence

The estimated number of people with tSCI living in the United States is approximately 308,620 persons, with a range from 259,374 to 393,913 persons.

- **Data Source:** Lasfargues JE, Custis D, Morrone F, Carswell J, Nguyen T. A model for estimating spinal cord injury prevalence in the United States. Paraplegia. 1995;33(2):62-68.

Age at Injury

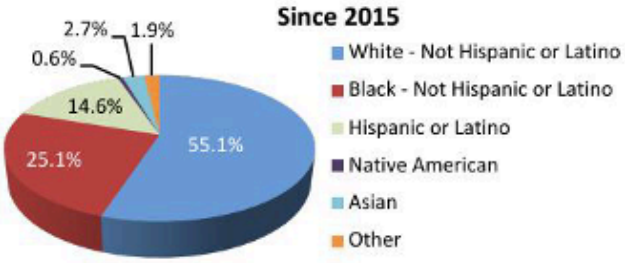
The average age at injury has increased from 29 years during the 1970s to 44 years since 2015.

Sex

About 78% of new tSCI cases since 2015 are male.

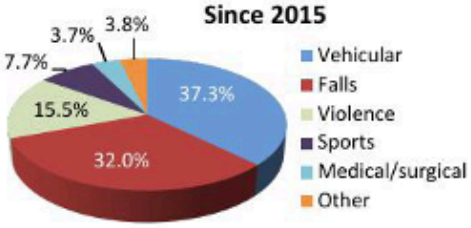
Race/Ethnicity

About 25% of recent injuries have occurred among the Black – Not Hispanic or Latino population. Yet, about 12% of the U.S. population is Black – Not Hispanic or Latino.



Cause

Vehicle crashes and falls account for almost 70% of recent injuries. Acts of violence (mostly gunshot wounds) and sports/recreation injuries account for about 23%.



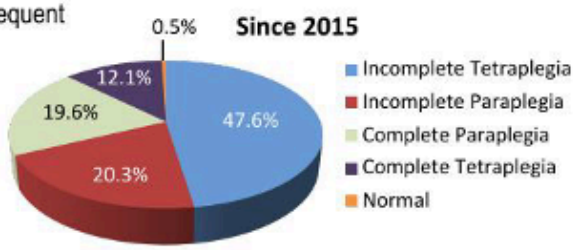
Lengths of Stay

The average lengths of stay in the hospital acute care unit have declined from about 30 days in the 1970s to about 19 days since 2015. The average rehabilitation lengths of stay have also declined from about 110 days in the 1970s to about 37 days since 2015.

- **Note:** Lengths of stay have been shown on this data sheet in averages since 2024. Lengths of stay in previous years were shown in median.

Neurological Level and Extent of Lesion

Recently, incomplete tetraplegia is the most frequent neurological category. The frequency of incomplete and complete paraplegia is almost the same. Less than 1% of persons experienced complete neurological recovery by the time of hospital discharge.



SCIMS
Spinal Cord Injury Model System
Since 1970

MSKTC.org
SCI · TBI · BURN
Model Systems Knowledge Translation Center

Education

Since 2015, 24% of persons with tSCI have a college degree at the time of their injury, compared with 44% of people who survived 40 years of injury.

Education (%)	At Injury	Year 1	Year 10	Year 20	Year 30	Year 40
High School Only	52.3	52.8	49.1	45.8	41.7	35.6
College or Higher	23.6	25.8	29.0	28.8	34.3	44.2

Employment Status

Since 2015, 18% of persons with tSCI are employed at year 1 post-injury. The employment rate increases over time before peaking at 30 years post injury.

Status (%)	At Injury	Year 1	Year 10	Year 20	Year 30	Year 40
Employed	65.0	17.8	25.6	29.0	30.3	27.0
Student	6.7	5.4	2.4	0.7	0.3	0.1

Marital Status

Since 2015, the percentage of people who are married is relatively consistent up to year 30 post-injury, with single/never married status slowly decreasing and divorce status slowly increasing.

Status (%)	At Injury	Year 1	Year 10	Year 20	Year 30	Year 40
Single	44.7	43.5	38.2	36.1	34.3	24.8
Married	36.9	36.3	34.1	35.1	35.1	44.1
Divorced	8.8	10.3	18.4	19.8	22.4	21.7

Re-Hospitalization

Since 2015, about 29% of persons with tSCI are re-hospitalized at least once during any given year following injury. About 18 days is the average length of stay when re-hospitalized. 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.

Historical Lifetime Costs

The average yearly expenses (health care costs and living expenses) and the estimated lifetime costs that are directly attributable to tSCI vary greatly based on education, neurological impairment, and pre-injury employment history. The below estimates do not include any indirect costs such as losses in wages, fringe benefits, and productivity (indirect costs averaged $95,309 per year in 2024 dollars).

Severity of Injury	Average Yearly Expenses (in 2024 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	$1,410,163	$244,879	$6,256,937	$3,438,706
Low Tetraplegia (C5–C8) AIS ABC	$1,018,966	$150,222	$4,571,708	$2,812,009
Paraplegia AIS ABC	$687,262	$91,042	$3,059,615	$2,007,933
Motor Functional at Any Level AIS D	$460,224	$55,900	$2,090,344	$1,475,423

Data Source: Economic Impact of SCI published in the journal Topics in Spinal Cord Injury Rehabilitation, Volume 16, Number 4, in 2011.
American Spinal Injury Association Impairment Scale (AIS) is used to grade the severity of a person's neurological impairment following tSCI.

Historical Life Expectancy

Since the 1970s, life expectancies have increased steadily for people with tSCI during their first year of injury. However, life expectancies after their first year have not changed since the early 1980s and remain substantially below the life expectancies of the general population. An individualized Life Expectancy Calculator is available at uab.edu/nscisc/life-expectancy-calculator.

Age at Injury	No tSCI	Life Expectancy (years) for Post-Injury by Severity of Injury and Age at Injury									
		For Persons Surviving the First 24 Hours					For Persons Surviving at Least 1 Year Post-Injury				
		High Tetraplegia (C1–C4) AIS ABC	Low Tetraplegia (C5–C8) AIS ABC	Paraplegia AIS ABC	Motor Functional AIS D (Any Level)	Ventilator Dependent (Any Level)	High Tetraplegia (C1–C4) AIS ABC	Low Tetraplegia (C5–C8) AIS ABC	Paraplegia AIS ABC	Motor Functional AIS D (Any Level)	Ventilator Dependent (Any Level)
20	57.1	28.0	34.9	40.3	48.4	8.2	28.7	35.5	40.7	48.7	14.2
40	38.8	17.5	21.6	26.4	32.1	6.7	18.2	22.1	26.7	32.3	10.5
60	22.1	10.0	11.6	14.5	17.8	3.3	10.9	12.0	14.8	18.0	7.0

Historical Causes of Death

During the first year of injury, the three leading causes of death among people with tSCI were respiratory diseases (mostly pneumonia and influenza), other heart diseases (often unexplained heart attacks that usually do not represent a true underlying cause of death), and infective and parasitic diseases (mostly septicemia secondary to urinary or pressure injury infections). Among people surviving the first year after injury, respiratory diseases were the leading cause of death (19.6%), followed by infective and parasitic diseases (13.1%), cancer (12.1%), hypertensive and ischemic heart diseases (11.0%), and other heart diseases (7.2%).

- **Data Source:** National Spinal Cord Injury Statistical Center. 2024 Annual Statistical Report for the Spinal Cord Injury Model Systems. University of Alabama at Birmingham: Birmingham, Alabama.

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Travis Roy – Someone You Should Know

Travis Roy

Who among us, at the ripe old age of 20 or so, has not wondered what our futures held in store for us? Not Travis Roy—he knew where he was headed, but more importantly, he was exactly where he wanted to be. That place was center ice, dressed in a Boston University hockey uniform preparing for a game opening face-off.

Travis's earliest memories of skating were of the power skating clinics taught by his dad, Lee Roy. A hockey star at the University of Vermont, Lee Roy was the team's MVP and had been elected into the UVM Hall of Fame. His father was a champion of youth hockey in southern Maine during the early 1970s, founding the Portland Youth Hockey Association. He managed four different rinks in the state of Maine, and coached kids from early elementary through college age. He also ran summer camps, sharpened skates and drove the Zambonis. Lee Roy had a lifelong passion for the game of hockey, and he passed that on to Travis.

Travis began playing organized hockey on teams coached by his father at the age of four. Due to all the hard work Travis put in at the power skating camps taught by his father, he learned to skate as well as anyone. He wasn't necessarily faster, but he was more balanced and more agile. Every year at these camps Travis worked on the same drills which focused on the basics and fundamentals. By the age of 20, Travis could pass, skate and handle a stick with the best of them. It seemed like his whole life had been in preparation for this October night in 1995 when he skated onto the ice for his varsity debut with Boston University. Little did he know that his life would be forever changed 11 seconds after the puck dropped for the opening face-off.

Following the face-off, the puck was knocked toward the boards. Skating hard after it Travis crashed into the boards, cracking his 4th and 5th cervical vertebrae. The result was catastrophic. Travis was a quadriplegic, paralyzed below the shoulders.

Following intense rehabilitation Travis returned to Boston University one year later, but as a student and not a hockey player. Four years later he graduated with a degree in public relations. In 1997, Roy wrote his autobiography entitled *ElevenSeconds* with the help of a writer from *Sports Illustrated*. Later that year, he founded the Travis Roy Foundation, a 501(c)(3) nonprofit that focuses on finding a cure for spinal cord injuries and providing financial assistance to spinal cord injury survivors in need of adaptive equipment. Travis became a popular motivational speaker throughout New England and as an activist, he testified before the Maine and Massachusetts legislatures, as well as the United States Senate, in support of spinal cord injury issues.

Philanthropist, author, activist and speaker, Travis Roy passed away in 2020, leaving behind a remarkable legacy. The Travis Roy Foundation awarded over $500,000 in research grants and $2,200,000 in individual grants during its 26 years of operation. As a final tribute, endowments were gifted to the Spaulding Rehabilitation Hospital and the Shepherd Center, and the Travis Roy Center for Enhanced Independence that was established at Spaulding, continuing his commitment to improving the lives of those with spinal cord injuries.

A Day in The Life

This feature is a sometimes humorous, sometimes offbeat, and sometimes irreverent look at life as seen through the eyes of a severely disabled person. Management takes no responsibility for these ramblings.

$10 Don't Buy Nothing No More – Or Does It?

It is no secret to anyone that inflation has taken a terrible toll on our economy – and ourselves over the past few years. Annual rates peaked at about 8% in 2022. Just saying that sentence out loud is chilling. The recent government shutdown and its real impact on those experiencing food insecurity have heightened attention on the persistently high inflation rate. This is not an article about the political state of our nation however. It is my personal request to each one of you and how you can help those who are living with permanent, truly life-altering disabilities for as little as $10 per month.

Everyone reading this article knows what we do at The Joseph Groh Foundation. For the past 16+ years, an all-volunteer group of like-minded individuals have worked hard to minister to those in the trades who are living with these disabilities. I use the word minister purposefully, because we are attending to the needs of those who seek our help. Our ability to conduct this ministry is only possible due to the generosity of those who share our mission and our passion.

Of the 1300 or so of you who will receive this newsletter, approximately 40-45% of you are in that group who are making this mission possible. You are the ones who have brought over $1.4 million of much-needed assistance in a time of extreme emergency to 150 families in 38 states. We all know however that the need for what we collectively help mitigate is never ending, and we are constantly trying to think of how we can do more. We have a solution.

By virtue of this message, I am asking the 55-60% of those of you receiving this email to forgo a couple of Starbucks Lattes or that burger for something else every month. I am asking you to become a Luminary of The Joseph Groh Foundation. I am asking you to join the dozens of others who are already Luminaries, and who cumulatively are helping 2-3 families a year in their time of greatest need.

Can you do that? Will you do that? I'll make it easy for you. Simply navigate to the URL below and click to donate. Your Starbucks Lattes will understand!

www.josephgrohfoundation.org/luminary

Thank You

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