

International Center for Spinal Cord Injury at Kennedy Krieger Institute

Who We Are

The International Center for Spinal Cord Injury at Kennedy Krieger Institute was founded on the philosophy that there is always hope for individuals with paralysis to recover sensation, function, mobility and independence—months or even years after injury. The center offers intensive medical and therapy programs emphasizing activity-based restorative therapies that focus on recovery from spinal cord injuries and associated disorders. One of the first programs of its kind, it treats both children and adults—even those with chronic paralysis—and combines innovative research with restoration and rehabilitation. Our goal is to improve each patient's health and quality of life to enable engaged participation at home and in the community.

Who We Serve

The center welcomes children, adolescents and adults. While most people associate spinal cord injury with sudden traumatic injury such as a motor vehicle accident or a fall, paralysis can also be caused by:

- Developmental disorders, such as spina bifida
- Vascular events, such as arteriovenous malformation, spinal cord strokes or aortic aneurysm
- Demyelinating diseases, such as transverse myelitis, acute flaccid myelitis, multiple sclerosis or acute disseminated encephalomyelitis
- Infectious diseases, such as meningitis or encephalitis
- Spinal tumors
- Complications of spinal surgery

In addition, people with other rare neurologic conditions—such as neurofibromatosis, adrenoleukodystrophy, ALS (amyotrophic lateral sclerosis, or Lou Gehrig's disease) and Friedrich's ataxia—are also well-suited to this program.

Our Treatment Approach

The center emphasizes an innovative therapy technique known as activity-based restorative therapy (ABRT). ABRT focuses on restoring function rather than teaching people to compensate for their loss of function. Therapists and physicians emphasize the return to near-normal levels of activity to optimize the nervous system for recovery and offset the rapid aging and chronic complications people with paralysis experience. Specific ABRT approaches include functional electrical stimulation, weight training, locomotor training and aquatic therapy.

Individualized treatment plans are developed with each patient and their family, and are tailored to meet their unique needs. Upon discharge, all patients receive a detailed, individualized home rehabilitation program to improve and maintain gains between therapy visits.



- **Inpatient program:** The inpatient program is a comprehensive evaluation and treatment program for children and young adults (birth to age 21) with acute or chronic spinal cord dysfunction, including those requiring ventilator assistance. An intensive rehabilitation plan is tailored to the unique needs of each patient and family. Patients receive at least four hours of therapy every day; most receive more.
- **Outpatient medical clinic:** In our outpatient medical clinic, physiatrists provide evaluations, periodic follow-ups, and medical management of chronic spinal cord injuries and paralysis for patients of all ages. The focus is to minimize and prevent medical complications and promote lifelong health.
- **Outpatient therapy program:** Our medically supervised outpatient therapy program welcomes patients of all ages. Therapy sessions are conducted on an individual basis and focus on achieving goals established between the patient, physician and therapist. This program offers both short-term intensive therapy, convenient for out-of-state patients, and extended intensive therapy options. Patients receive a minimum of three hours of therapy per visit.
- **Aquatic Therapy Program:** The center has two state-of-the-art pools with a range of warm water temperatures and therapeutic options, built-in treadmills for retraining and observing gait patterns, video systems for monitoring therapy activities, multiple jets used for resistance, and floors that operate on lifts to allow for easy access by patients in wheelchairs.

We are all born with great potential.
Shouldn't we all have the chance to achieve it?



International Center for Spinal Cord Injury
at Kennedy Krieger Institute
Research. Restoration. Recovery.

Our Team

Because patients recovering from a spinal cord injury or paralysis may have complex needs, an experienced, interdisciplinary treatment team works with each patient and family. The team may include:

- Adaptive aquatic specialists
- Assistive technology professionals
- Child life specialists
- Nurse care managers
- Nurse practitioners
- Nurses
- Occupational therapists
- Orthotists
- Personal trainers
- Physiatrists
- Physical therapists
- Psychologists
- Seating and mobility specialists
- Social workers

When appropriate, the center will refer patients to additional Kennedy Krieger services and programs and will work with those teams to provide seamless care.

Additional Services

- **Dry needling:** This fee-for-service skilled intervention stimulates underlying myofascial trigger points, muscles and connective tissues to manage neuromusculoskeletal pain and movement impairment.
- **Seating Clinic:** This clinic within the center provides comprehensive evaluations, recommendations, and fittings of wheelchairs and specialized seating systems, including pressure mapping, to determine the best equipment to meet the patient's mobility and positioning needs.
- **Orthotics services:** We provide an interdisciplinary approach to bracing through comprehensive examination, assessment and analysis to make a recommendation that will best meet a patient's needs. Therapists, orthotists and the medical team work together to optimize each patient's functioning through appropriate bracing.
- **Life Through Motion wellness program:** Furthering our continuum of care, the center offers a wellness program with personal training options and nutrition services. Designed to augment therapy, the wellness program provides opportunities for consistent physical activity outside of therapy to help build and improve strength, flexibility, balance, endurance and cardiovascular health.
- **Adaptive Sports Program:** The benefits of recreational activities for individuals with disabilities are well-recognized and include building self-confidence, rebuilding strength, and increasing independence and socialization. We offer a range of programs, including adaptive handcycling, virtual and adaptive sailing, and wheelchair rugby and lacrosse. Visit [KennedyKrieger.org/Adaptive-Sports](https://www.kennedykrieger.org/Adaptive-Sports) to learn more.
- **Wound care and healing:** We take an interdisciplinary approach to wound care and healing, offering services that

include evaluation and assessment, individualized treatment, consultations, and education. The goal is to improve patients' health, wellness and community participation by promoting both skin healing and the prevention of skin breakdown.

- **Social work and psychology services:** Adjusting to paralysis or spinal cord injury is a lifelong process. The center's social worker and psychologist support patients in building lives that are not just focused on disability. Instead, patients learn how to integrate back into their communities and live meaningful, purposeful lives.
- **Patient resource groups:** We offer our Regeneration Generation series and a peer mentoring program for patients, family members and caregivers.
- **Bone density measurements:** We take dual-energy X-ray absorptiometry (DXA) scans to prevent, detect and treat osteoporosis.
- **Urodynamics studies:** These are made to assess and address bladder performance (available only to adult patients).
- **Nurse consultation:** Patients and families may consult with our nursing team regarding skin issues and bowel and bladder management.
- **Nurse case management:** These services are available for information and general assistance.
- **Telehealth:** Secure teleconferencing technology allows us to conduct telehealth appointments with patients unable to be at our center for health reasons.

Contact Information

International Center for Spinal Cord Injury at Kennedy Krieger Institute

Email us at Info.Sci@SpinalCordRecovery.org for more information or to schedule an appointment. Or, please call us at **443-923-9222**, or toll-free at **888-923-9222**. TTY users, please contact us at **443-923-2645**, or dial **711** to make a Maryland Relay call.

[SpinalCordRecovery.org](https://www.SpinalCordRecovery.org)

Physicians and Healthcare Professionals

To make a referral, call our Physician Referral Line at **443-923-9403**.

Mailing Address

707 North Broadway
Baltimore, MD 21205

Kennedy Krieger Institute recognizes and respects the rights of patients and their families and treats them with courtesy and dignity. Kennedy Krieger Institute provides care that preserves cultural, psychosocial, spiritual and personal values, beliefs and preferences. Care is free from discrimination based on age, race, ethnicity, religion, culture, language, physical or mental disability, socioeconomic status, sex, sexual orientation, and gender identity or expression, including transgender. We encourage patients and families to become active partners in their care by asking questions, seeking resources and advocating for the services and support they need. © 2020 Kennedy Krieger Institute 05/2020



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