

# 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 adult patients. 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 or cerebral palsy
- 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 therapies (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 therapeutic approaches include functional electrical stimulation, weight training, locomotor training and aquatic therapy. Individualized treatment plans are tailored to meet the unique needs of each patient and family. Upon discharge, all patients



receive a detailed, individualized home rehabilitation program to improve and maintain gains between therapy visits.

Treatment plans are developed with the patient and family, and are tailored to meet the unique needs of each patient.

- **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.

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.*

- **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.

## 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
- Nurse care managers
- Nurse practitioners
- Nurses
- Nutritionists
- Occupational therapists
- Orthotists
- Personal trainers
- Psychiatrists
- Physical therapists
- Seating and mobility specialists
- Psychologists
- 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 program is a skilled intervention that 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 function 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 hand cycling, virtual and adaptive sailing, and wheelchair rugby and lacrosse. Visit [KennedyKrieger.org/Adaptive-Sports](http://KennedyKrieger.org/Adaptive-Sports) to learn more.

- **Patient resource groups:** We offer our Regeneration Generation series, a monthly support group, 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** regarding skin issues and bowel and bladder management.
- **Nurse case management** for information and general assistance.

## Our Success

Our program has a proven record of treatment success and patient satisfaction:

- 98 percent of inpatients met or exceeded treatment goals set at the time of admission.
- 100 percent of outpatients surveyed rate our care team as excellent or good.
- 100 percent of outpatients surveyed rate our therapy services as excellent or good.
- 100 percent of patients would recommend our program to others in need of rehabilitation.

## Contact Information

### International Center for Spinal Cord Injury at Kennedy Krieger Institute

Email us at [Info.Sci@SpinalCordRecovery.org](mailto: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

### 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. © 2017 Kennedy Krieger Institute 12/2017



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