

Clinical Connection

News, Updates, and Support for Healthcare Professionals



Kennedy Krieger Institute
UNLOCKING POTENTIAL

REHABILITATION • DEVELOPMENTAL MEDICINE • BEHAVIORAL THERAPIES



Dear Colleague,

At Kennedy Krieger Institute, we are committed to providing specialized medical and therapeutic care for children and young adults with disorders and injuries of the brain, spinal cord, and musculoskeletal system. Our medical staff of hundreds of clinicians, representing more than 75 specialty

clinics and programs, and a staff of 2,500 dedicated employees provide your patients and families unique access to the latest in research and treatment for neurorehabilitation, behavioral disorders, and other developmental disorders.

To ensure your patients receive the best care possible, we take a team approach, bringing together physicians, psychologists, therapists, and other clinicians to address all of a patient's needs. Our staff works closely with you, and your patients and families, to develop comprehensive and individualized treatment plans.

We offer care in a variety of settings, including a specialty pediatric hospital and outpatient centers that see more than 20,000 patients each year, day treatment services, and home- and community-based programs. We now have outpatient locations in Odenton and Columbia, Md., in addition to our Baltimore locations, offering added convenience for your patients and families.

With this newsletter, we've included a copy of *Potential* magazine, which contains inspiring stories, news, and research updates for your patients. We appreciate your trust in referring patients to Kennedy Krieger, and we value your input as partners in their care.

If you have any questions or would like to learn more about any of our patient care programs, please call our Physician Referral Line at **443-923-9403** or email us at **FindASpecialist@KennedyKrieger.org**.

Sincerely,
Gary W. Goldstein, MD
President and CEO

INSIDE THIS ISSUE:

- Robotics: The Future of Rehabilitation
- Piecing Together Puzzling Neurological Disorders
- How to Refer a Patient to Kennedy Krieger

REFERRING YOUR PATIENTS

To support the needs of physicians and healthcare professionals, our care management team is available to provide information on appropriate clinical programs, handle referrals, obtain consultations with Institute specialists, and schedule appointments for patients and families.

Call **443-923-9403** to reach our Physician Referral Line or visit **KennedyKrieger.org/Referrals** for information and resources for physicians and healthcare professionals.

For general information, call **1-888-554-2080** or visit **KennedyKrieger.org**.

OUR CULTURE OF CARE

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.

ROBOTICS: THE FUTURE OF REHABILITATION

Kennedy Krieger offers patients the latest rehabilitation technologies and equipment, including robotic-assisted devices to improve function, reduce muscle atrophy, and stimulate nerves. Recent advances in understanding of the connections between adaptive neuroplasticity and functional recovery have led to accelerated development of robotic devices that improve rehabilitation outcomes. Robotic devices are used for both occupational and physical therapy, giving our therapists more tools than ever before to help patients build function and independence in both inpatient and outpatient settings.

The benefits of robotic therapy are significant. These sophisticated devices, which are programmed for each patient, allow our specially trained therapists to guide the user through repeated, precise movements, and provide real-time feedback for patients, and objective measures relating to position.

Robotic rehabilitation equipment available at Kennedy Krieger includes the following:

- The **MediTouch 3D Tutor™** consists of a wearable wireless motion feedback device and dedicated physical therapy rehabilitation software for functional rehabilitation of the upper and lower extremities. Quantitative bio-mechanical data allows for objective evaluation and physical therapy treatment follow-up.
- The **Armeo®Boom** and **Armeo®Spring** therapeutic technologies combine self-directed movement exercises with Augmented Performance Feedback designed to increase range of motion, strength, and endurance, and facilitate self-initiated movement.
- The **MediTouch LegTutor™** system consists of a leg brace and dedicated rehabilitation software, with exercises designed as challenging games suitable for a wide variety of neurological and orthopedic injuries and disorders.
- The **Myomo EMG triggered elbow extension assist orthosis** enables patients to initiate and control movement of a partially paralyzed arm using their own muscle signals through both elbow flexion/extension and grasping function.
- The **RT600 upright FES elliptical** sends electrical currents to a patient's arms or legs, signaling limbs to contract and perform a maneuver that would otherwise be impossible, such as pedaling a bike.
- The **Ekso™ exoskeleton** is a powered lower limb orthosis that enables people with lower extremity weakness or paralysis to return to standing and walking. In addition, this battery-powered bionic device can be used to supplement our gait training therapies. The device sends real-time patient performance data to the therapist's mobile device, so adjustments can be made to create the best program for success.

• The **G-EO System™** allows patients with lower extremity weakness or paralysis to experience mobility and independence in daily living by performing realistic simulations of activities such as over-ground walking and going up and down stairs. When using the G-EO, therapists are able to provide real-time adjustments in a safe and controlled environment to maximize the benefits of the equipment for each individual.

• The **MediTouch HandTutor™** is a glove and software system that provides hand biofeedback. Challenging games and biofeedback provide patients with the motivation to continue intensive, repetitive fine motor finger and wrist exercises.



Armeo@Boom



The G-EO System™



MediTouch HandTutor™

To learn more about how rehabilitation therapy and robotics can benefit your patients, or to schedule a visit to our Baltimore locations to see these exciting technologies in person and speak with our therapists, please visit Rehabilitation.KennedyKrieger.org.

PIECING TOGETHER PUZZLING NEUROLOGICAL DISORDERS



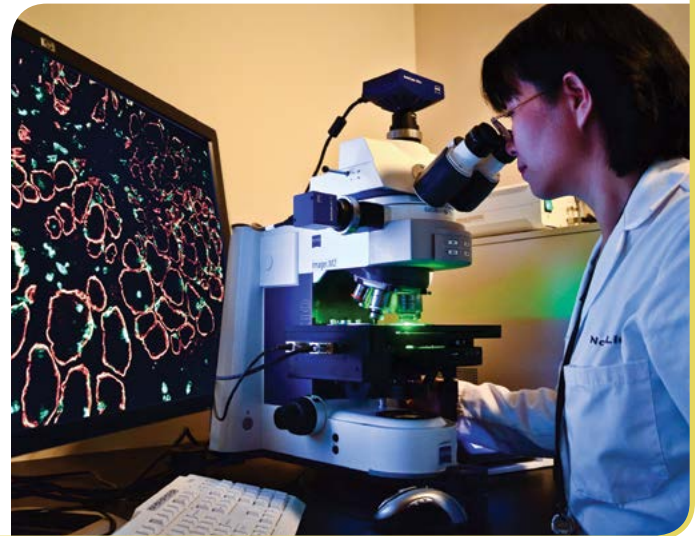
The Neurology and Neurogenetics Clinic at Kennedy Krieger Institute provides diagnostic services, therapeutic interventions, and genetic counseling for a broad spectrum of disorders affecting the brain and central nervous system. Patients are referred from around the country and around the world, and we often see puzzling

or unusual cases that have previously defied diagnosis. We combine decades of experience in childhood neurological disorders with advanced genomics technology to develop personalized treatment plans for patients.

In our interdisciplinary clinic, teams consisting of neurologists, epileptologists, sleep disorder specialists, neurodevelopmental disorders specialists, genetic counselors, rehabilitation physicians, and physical, occupational, and speech therapists work together to offer accurate diagnoses and advanced treatments. For some children, treatments can be tailored to the gene affecting their disorder, such as Sturge-Weber syndrome, Rett syndrome, fragile X syndrome, tuberous sclerosis,

mitochondrial disorders, and leukodystrophies. Although many of the disorders we manage cannot yet be cured, certain interventions can improve the lives of patients and their families.

For more information or to make a referral, contact our physician referral line at **443-923-9403** or email **FindASpecialist@KennedyKrieger.org**.



HOW TO REFER A PATIENT

Kennedy Krieger is dedicated to developing and maintaining strong working relationships with referring healthcare professionals, and to making the referral process as efficient as possible for you and your staff. We also recognize the importance of your relationship with your patients and families, and we honor that by providing the best possible care and keeping you informed about their care.

How to Request Outpatient Appointments

Kennedy Krieger Institute offers patient care in more than 60 specialty clinics and programs. To refer a patient for outpatient care, please use one of the following options:

- Online – Complete the Online Request for an Appointment form on the **KennedyKrieger.org** website by clicking the “Appointments” button in the upper right corner of any page.
- Email – Send an email to our physician referral address at **FindASpecialist@KennedyKrieger.org**.
- Phone – Call our Physician Referral Line at **443-923-9403**.

Referrals to Inpatient Programs

Referrals to one of our inpatient pediatric programs can be made by calling **443-923-9403** or emailing **FindASpecialist@KennedyKrieger.org**. Our inpatient programs include the following:

- Feeding Disorders Unit
- Neurobehavioral Unit (NBU)
- Rehabilitation Unit – Brain Injury, Pain Rehabilitation, Post-Orthopedic or Brain Surgery, and Spinal Cord Injury



Kennedy Krieger Institute

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Baltimore, Maryland 21205

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PATIENT CARE PROGRAMS & SERVICES

Specialty Pediatric Hospital

Feeding Disorders Unit
Neurobehavioral Unit (NBU)
Rehabilitation Unit—Brain Injury, Pain Rehabilitation,
Post-orthopedic Surgery, and Spinal Cord Injury

Outpatient Centers, Programs, and Services

International Adoption Clinic
Albright Clinic
Aquatic Therapy Program
Assistive Technology Clinic
Audiology Program
Center for Autism and Related Disorders
Barth Syndrome Clinic
Behavior Management Clinic
Bone Disorders Program
Brachial Plexus Clinic
Brain Injury Outpatient Clinics
Brain Injury Responsiveness Program
Phelps Center for Cerebral Palsy and
Neurodevelopmental Medicine
Child and Family Support Program
Child and Family Therapy Clinic
Community Rehabilitation Program
Constraint-Induced and Bimanual Therapy Program
Cranial Cervical Clinic
Deafness-Related Evaluations Clinic
Center for Development and Learning
Developmental Cognitive Neurology Clinic
Pediatric Developmental Disorders Clinic
Down Syndrome Clinic and Research Center
Pediatric Epilepsy and Neuropsychiatry Program
Pediatric Feeding Disorders Program
Fetal Alcohol Spectrum Disorders Program
Focused Interdisciplinary Therapy Program
Fragile X Clinic
Healthy Lifestyles Therapy Program
Center for Holoprosencephaly and Related Malformations
Intrathecal Baclofen Program
Limb Differences Clinic

Moser Center for Leukodystrophies
Military Behavioral Health Services
Movement Disorders Program
Center for Genetic Muscle Disorders
Neurobehavioral Outpatient Program
Neurology and Developmental Medicine Program
Neurology and Neurogenetics Clinic
Clinical Neurophysiology Clinic and Laboratory
Neuropsychology Outpatient Clinics
Neurorehabilitation Concussion Clinic
NICU Follow-up Clinic
Nutrition Clinic
Occupational Therapy Clinic
Orthopedic Clinic
Osteogenesis Imperfecta Clinic
Pediatric Pain Rehabilitation Program
Physical Therapy Clinic
Pediatric Psychology and Consultation Clinic
Psychiatric Mental Health Program
Pediatric Rehabilitation Clinic
Seating Clinic
Sickle Cell Neurodevelopmental Clinic
Sleep Disorders Clinic and Laboratory
Specialized Transition Program (STP)
Speech and Language Clinic
Philip A. Keelty Center for Spina Bifida
and Related Conditions
International Center for Spinal Cord Injury
Hunter Nelson Sturge-Weber Center
Center for Child and Family Traumatic Stress
Tuberous Sclerosis Clinic
Weight Management Program

Continuums of Care

Continuums allow patients to be seen through all stages of care, including 24-hour inpatient programs, day treatment, home- and community-based services, and outpatient programs. They include **Pediatric Feeding Disorders, Neurobehavioral Disorders, and Pediatric Rehabilitation (brain injury, pain management, post-orthopedic surgery, spinal cord injury).**

For a complete listing of all diagnoses, disorders, programs, and services,
visit KennedyKrieger.org/PatientCare or call 888-554-2080, TTY 443-923-2645, or Maryland Relay 711.