Dear Reader:

Due to the herculean work of the entire NYU Langone Medical Center staff after Hurricane Sandy, the Medical Center reopened its primary facilities and resumed all clinical services earlier this year, and the future looks brighter than ever. The Hospital for Joint Diseases (HJD) played a significant role during the hurricane, remaining open throughout the storm and, during the aftermath, accommodating extended hours and offering space and resources to displaced physicians, allowing them to provide services and perform procedures not typically undertaken at HJD.

In the meantime, our pediatric orthopaedic specialists remain available 24/7 to respond to urgent pediatric injuries. The Immediate Care Center at HJD (301 East 17th Street) offers walk-in, immediate care for children with orthopaedic injuries, from 8:00 a.m. to 11:00 p.m., seven days a week. After hours, the newly opened Urgent Care Center, located in the main campus of NYU Langone Medical Center (530 First Avenue at 30th Street), offers the same compassionate care for children as is available at HJD. While the Emergency Department remains temporarily closed, the Urgent Care Center is staffed by emergency medicine physicians, nurses, and specialists who are available to treat pediatric patients with any type of injury.

For nonurgent injuries and concerns, the Center for Children offers the services of a team of specialized doctors, nurses, physical and occupational therapists and child life specialists who focus solely on providing the highest quality care and support for our patients and families.

Caring for children with orthopaedic injuries and conditions requires specialized knowledge of their psyche and the anatomy of their bones and joints. Pediatric specialists are able to treat pediatric injuries and conditions properly, allowing for excellent, lifelong outcomes after an injury. Children are not just small adults—some injuries are more serious than similar injuries in adults, while others are quite the opposite. Treating pediatric fractures and joint injuries demands an intricate knowledge of a child’s musculoskeletal system and an understanding of a child’s unique healing potential.

At the Center for Children, we have a team of pediatric orthopaedic specialists who are dedicated to the treatment of injuries in children. Our doctors are trained in techniques that are unique to the management of pediatric injuries, ranging from the use of waterproof casts to minimally invasive surgical techniques that cause less scarring and allow for a speedier recovery.

This latest issue of the Center for Children e-News continues where the last left off, providing updates and news about our clinical services, educational programs, research and community engagement activities of our faculty and staff. We hope you enjoy the publication and we look forward to providing you with ongoing updates on our progress.

Sincerely,

David S. Feldman, MD
Chief, Division of Pediatric Orthopaedic Surgery

Norman Y. Otsuka, MD
Director, Center for Children

---

**In This Issue:**

- News from the Center for Children .................................................. 2
- Clinical Spotlight: Our Child Life Program .......................... 3
- Research Roundup ................................................................. 3
- Plans Under Way to Launch Pediatric Motion Analysis Lab ............................. 4
- Rusk’s Renovated Pediatric Therapy Facilities Open at HJD ................................. 5
- From a Surgeon’s Perspective: The Rapidly Evolving Field of Idiopathic Scoliosis ........................... 6
HJD has achieved Magnet® recognition by the American Nurses Credentialing Center (ANCC), the international accrediting body that recognizes healthcare organizations for nursing excellence. HJD achieved Magnet status based on its nursing professionalism, teamwork and superiority in patient care. Only 390 of the nearly 6,000 healthcare organizations in the United States currently maintain Magnet status, and HJD now joins NYU Langone’s Tisch Hospital and Rusk Rehabilitation, both of which had previously been recognized with Magnet status.

As part of our academic mission, the Division of Pediatric Orthopaedic Surgery continues its Visiting Professor/Lecture Series, initiated in 2012. To date, the division has hosted renowned orthopaedists such as Brian G. Smith, MD, who spoke about neuromuscular scoliosis; William L. Hennrikus, MD, who spoke about pediatric elbow fractures; John Flynn, MD, who spoke about pediatric fracture care and pediatric spine care; and Francesco Motta, MD, who spoke about intrathecal baclofen therapy.

David S. Feldman, MD, and Norman Y. Otsuka, MD, have been invited to participate in the International Perthes Study Group. The inaugural meeting was held in March 2012 and included fifty physicians from around the world. They discussed current concepts, research, and treatment methods in hopes of developing multicenter prospective cohort studies in the future, which will lead to new methodologies for treating Legg-Calve-Perthes disease.

The comprehensive treatment of clubfoot deformities is available at the New York Ponseti Clubfoot Center, a component of the Ebers Center for Foot Deformity at the Center for Children. Led by Wallace B. Lehman, MD, and Alice Chu, MD, this specialty clinic offers exceptional medical, surgical, and rehabilitative services to children with complex clubfoot and foot deformities. Dr. Lehman and Dr. Chu are excited to relaunch the web content for clubfoot and foot deformities, including a video featuring how they utilize the nonsurgical Ponseti method to correct clubfoot. View the video at http://centerforchildren.med.nyu.edu/clubfoot-foot-deformities.

The Division of Pediatric Orthopaedic Surgery and Center for Children have begun a collaborative project with St. Mary’s Hospital for Children in Bayside, Queens. David H. Godfried, MD, attending physician and clinical associate professor, will participate in a monthly interdisciplinary clinic at St. Mary’s. We are excited to announce this new initiative and look forward to this opportunity to expand access to pediatric orthopaedic services for children in the City of New York.

On April 6, 2013, division faculty conducted the continuing medical education conference, “ABCs of Pediatric Orthopaedics and Sports Injury.” It was led by HJD faculty and staff, including Alice Chu, MD, and Jenny Frances, MD.

---

**Upcoming Events**

- Fall 2013 – Alfred D. Grant Lectureship
- October 31-November 1, 2013 – CME Course: What’s Hot in Evidence-Based Strategies in Cerebral Palsy, New York, NY

*For more information or to register contact Priscilla Harmon, MHA, at priscilla.harmon@nyumc.org.*
Clinical Spotlight: Our Child Life Program

The Child Life program at HJD is composed of three full-time certified child life specialists: Tristan Buono, Stephanie Newman, and Lauren Maxwell. The program serves pediatric patients and their families by helping babies, children, and teens cope with medical illness, medical exams, procedures, and hospital stays. If a pediatric patient is afraid or anxious at any point during their visit to HJD, a child life specialist can accompany the child to their exam or procedure, provide them with developmentally appropriate education about the procedure, and provide emotional support for the patient and their family members.

In addition, Child Life runs therapeutic art and play groups in the Center for Children waiting area and in the 8 North Elly Hammerman Pediatric Inpatient Unit and, once a month, also organizes special events and celebrations. The Child Life program also services the newly reopened Inpatient Pediatric Rehabilitation Unit. In the fall, a “Back to School” party was held in the Center for Children, where children participated in fun art activities, had healthy snacks, and were able to socialize with their peers.

These therapeutic groups and special events are intended to normalize the experience and create more positive associations around the medical visit. In addition, children who are medically compromised often miss out on curricular activities due to their condition. Child Life activities and events create new opportunities for fun and playtime that patients might not have otherwise. Finally, the challenges of orthopaedic injuries or conditions can be an isolating and emotional experience for a child. The program offers an outlet for self-expression and a safe, comfortable place where these patients can form friendships and gain support by meeting other children who face similar challenges.

Visit http://centerforchildren.med.nyu.edu/child-life for more information about our Child Life program or contact us at 212.598.6444 or 212.598.6461.

Research Roundup

The faculty of the Division of Pediatric Orthopaedic Surgery continues to invest time and energy in research activities to progress the field of pediatric orthopaedics and provide the highest quality, evidence-based care to its patients. We are pleased to present some of our recent publications and presentations:


Fluid, coordinated upper extremity motion is something that most people take for granted. You may reach for a pen, twist a cap off, and start writing without giving it a second thought. In children with a diverse range of neuromuscular conditions it takes much more effort to do something as simple as grasping and releasing an object.

A recent KiDS of NYU Langone grant of $30,000 was awarded to the Departments of Orthopaedic Surgery and Rehabilitation Medicine as seed money to fund the development of a comprehensive pediatric upper extremity motion analysis program that will research the best therapies to help children with motion conditions. The program will be a collaborative effort between the two departments and is being spearheaded by Center for Children faculty member Alice Chu, MD, assistant professor of orthopaedic surgery, and Preeti Raghavan, MD, assistant professor of rehabilitation medicine and director of Rusk Rehabilitation’s Motor Recovery Lab.

Dr. Raghavan has already established an upper extremity motion analysis laboratory at Rusk geared to the study of adult patients with motion conditions. This lab is equipped with most of the necessary equipment to answer critical clinical questions on pediatric motion but it is currently focused on adult conditions. Since the infrastructure for research into motion analysis already exists, including electromyography, video analysis, and motion sensors, the grant will allow for modifications to facilitate pediatric motion analysis. Some essential tools will be needed, such as pediatric-sized gloves and sensors for measuring children, as well as pediatric staff to gather and analyze data. This area of study is of critical importance to patients with cerebral palsy, arthrogryposis, brachial plexus birth palsy, and other neuromuscular conditions.

A handful of pediatric motion analysis laboratories do exist nationwide but most are focused on lower extremity function. Although many surgical and nonsurgical interventions have been explored with the goal of improving fluidity and spontaneity in children with various disorders, almost none have been proven as definitively beneficial. This is likely due to the scarcity of basic science research in this area. A new research lab focused on pediatric upper extremity function will pave the way for many more academic publications in this field. Most importantly, it may lead to new innovations for improving hand function in children who face a lifetime of great disability.
Rusk Rehabilitation is excited to announce the full opening of its newly redesigned and relocated pediatric therapy facilities at the Hospital for Joint Diseases (HJD), located at 301 East 17th Street at Second Avenue.

The three primary areas of care are:

**Inpatient Rehabilitation Services:** The CARF-accredited Inpatient Rehabilitation Unit will reopen on the 8th floor with 16 beds for multidisciplinary, intensive, specialized therapy for children 18 months old through 20 years of age.

**Outpatient Therapy Units:** The Outpatient Unit will reopen on the 4th floor to provide comprehensive, multidisciplinary outpatient therapies for children from birth to 21 years of age in need of a hospital-based, restorative therapy program. Services include physiatry, physical and occupational therapy, speech/swallowing therapies, psychology services, therapeutic recreation/creative arts therapies, and a Child Life program.

**Acute Care Medical Surgical Unit:** As it has for several years, Rusk continues to provide rehab care for postsurgical patients and orthopedic care in HJD’s Acute Medical/Surgical Unit on the 8th floor of HJD.

Below are some highlights of the cutting-edge, comprehensive offerings that Rusk brings to the Hospital for Joint Diseases.

**Inpatient Rehabilitation**

The pediatric therapy team plays an integral role in the comprehensive rehabilitation of children ages 18 months through 20 years on the Acute Inpatient Unit. Children receive three hours of therapy five days a week with a modified weekend schedule. Sessions include individual sessions with highly trained pediatric therapists, as well as time on positioning equipment to optimize their current functional status. The ultimate goal is for the children to be able to return home and back to school. Extensive collaboration amongst the multidisciplinary team throughout the entire admission ensures all aspects of the child’s needs are met.

Therapy sessions focus on age appropriate developmental or functional skills that correspond to the child’s condition. The multidisciplinary team works closely with the families to ensure proper training for effective carryover when the therapy day is done, and ultimately for when they are discharged home and return to school.

Equipment and bracing needs are assessed to optimize functional outcomes, and state-of-the-art therapy equipment such as the Lokomat®, Lite Gait, RT-300, Saebo, and MOTOmed are utilized to restore lost function. Teachers from the Department of Education are also on-site to continue daily schooling, to facilitate communication with the child’s current school, coordinate academic testing when appropriate, and facilitate the return to the appropriate school setting.

**Integrative Health**

As the fortunate recipients of a generous donation, HJD now offers a full-time integrative health therapist available to all pediatric inpatients and their families.

**Outpatient Pediatric Speech Therapy**

Pediatric speech therapy services will now be available to outpatients as part of the comprehensive Outpatient Therapy Department.

**Lokomat® Intensive**

A twenty-one session Lokomat® intensive gait training program is offered through the pediatric Outpatient Physical Therapy Department. Candidates are screened for eligibility over the phone and through a thoughtfully designed clinic evaluation process.

**Concussion Program**

Patients under the age of 16 years who are referred through the NYU Langone Concussion Program will be treated at the pediatric outpatient therapy facility by specially trained therapists. Learn more about the program at www.NYULMC.org/concussion.

If you have any questions about Rusk’s services at the Hospital for Joint Diseases, please contact Maria-Cristina Tafurt, Site Director for Rusk Rehabilitation at HJD, at MCristina.Tafurt@nyumc.org or 212-598-6745.
Idiopathic scoliosis is a curvature of the spine that occurs for unknown reasons. Most often it is detected in late childhood or adolescence and is managed based on the severity of the curve and the growth remaining in the child. The curve is measured by degrees of the angle on a standing X-ray. Most curves do not progress and the patient will simply be monitored by a physician throughout his/her childhood and adolescence.

The two traditional treatment methods for a significant curvature are bracing and surgery. Bracing is only utilized if the child has a 25- to 35-degree curve and at least two years of remaining growth (bracing in a person who has finished growth is futile). Surgery is not usually indicated for any curvature that is less than 50 degrees. There are also many holistic and chiropractic methods for treating scoliosis, and while most are not harmful, they have not stood up to scientific rigor in terms of altering patient outcomes. Staying fit is always important for the scoliosis patient (particularly with core strengthening activities such as rowing, yoga or Pilates) but these fitness activities will likely not slow or change the curve progression.

The world of scoliosis detection and treatment is constantly evolving. In the more than twenty years I have been at HJD and NYU Langone, I have witnessed and been involved in the transition from casting and bed rest to minimal bracing and an early return to sports; CAT scans with spinal injections (myelograms) to rapid and accurate MRIs (no radiation); bracing that was bulky and uncomfortable to bracing that is barely noticeable under clothes. We have evolved from guessing if scoliosis in a young person is progressive, to the ScoliScore™ AIS Prognostic Test, which can accurately predict—with only a saliva test—if the child’s curve will progress; from standing X-rays that exposed the child to repeated radiation, to our new ultra low-dose radiation EOS® machine at the Center for Musculoskeletal Care; and from surgery that required post-surgical bracing and corrected the curvature minimally, to surgery that corrects the curve, balances the spine, and allows the patient to return to normal activity in weeks.

At the Center for Children, we continue to work on improving outcomes for our scoliosis patients and easing their care. I look forward to the next twenty years of evolution, when steps in treating the biology of scoliosis will completely change the outlook we have today for patients with this condition.

—David S. Feldman, MD