Full-Spectrum Orthopaedics Service Includes Pediatric Sports Medicine

For most of the last 100 years, the MassGeneral Hospital for Children (MGH/C) Orthopaedics Service has provided expert care for the full range of musculoskeletal injuries and congenital problems in children ranging in age from newborn to early adulthood. Collaborations with experts at Massachusetts General Hospital and Shriners Hospitals for Children-Boston™, an active clinical research program, and on-site access to some of the most advanced imaging capabilities in the world—including the first FDA-approved intraoperative MRI—have led to outstanding results in the diagnosis and treatment of both complex and routine orthopaedic conditions. With the addition of Jeffrey Kreher, MD, a specialist in pediatric musculoskeletal and sport medicine, the Orthopaedics Service now offers expanded services to young athletes with concussion, over-training syndrome, female athlete triad and other sport-related injuries as well as continued expert care of fractures and orthopaedic conditions including rare medical conditions.

**Pediatric Sports Medicine**

Children talented in a particular sport may begin training intensely at an early age. Media attention on the most successful of these young athletes, as well as the lure of a possible college scholarship, can lead to overuse and over specialization, which may, in turn, have negative repercussions for the developing musculoskeletal system. Sports-related medical problems, including eating disorders and compulsive training, Osgood-Schlatter disease, Little League elbow and injuries to developing joint surfaces and growth centers, can lead to problems ranging from lost training time to severe nutritional deficiencies and long bone deformity. As research reveals new connections between athletics and health issues, such as physical inactivity and long-term health and quality of life or the emerging connection between long distance running and gluten sensitivity, seamless access to specialists and subspecialists will play an increasingly important role in the care of physically active children and adolescents.

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MGHfC Opens State-of-the-Art Pediatric Endoscopy Suite

MGH/C opened a new, state-of-the-art pediatric endoscopy suite in February 2012. It combines the most advanced technologies for endoscopic diagnosis and treatment with a physical layout and care model geared for the comfort of pediatric patients and their families. This advanced technology, combined with expertise acquired through collaborations with Mass General adult gastroenterologists, allows practitioners to perform endoscopic ultrasounds, endoscopic retrograde cholangiopancreatography (ERCP), in-unit motility studies and therapeutic endoscopic procedures that can diagnose or treat young patients without surgery. Procedures can be broadcast nationally and internationally via video conferencing, facilitating shared expertise and increased communication among different medical centers involved in caring for children with specialized endoscopic needs. A second procedure room is used for more traditional endoscopic procedures.

New Technology Advances Care, Understanding and Education

Availability of new technologies and close collaboration with adult gastroenterologists with in-depth endoscopy expertise has made possible an advanced pediatric endoscopy training program for one of our senior pediatric gastroenterology fellows at MGH/C. This program is focused on training in emerging technologies and therapies for use in children, including endoscopic ultrasound with fine needle aspiration, endoscopic retrograde cholangiopancreatography (ERCP), choledoscopy, confocal endomicroscopy, endoscopic mucosal resection, radiofrequency ablation and cryo-ablation. With the additional skills in the use of these technologies, we will be better able to contribute to the development of new endoscopic procedures that specifically address the needs of the pediatric population.

Care Model Focuses on Patient and Family Comfort

The physical space and care model used within the new pediatric endoscopy suite were designed with input from parents, child life specialists, nurses and physicians to ensure the best possible experience for patients and families. All services, from reception through pre- and post-operative care, are provided in a dedicated pediatric space that contains games, books and toys, including an iPad. Both pediatric nurses with specialized training in pediatric endoscopy and a dedicated child life specialist work with patients to reduce anxiety.

Once children are admitted, they and their family members move to the pre/post area, comprising six large bays around the nurses’ station. These bays are equipped with TVs, DVDs, iPads, games and Wits.

Nurses have a direct line of sight into each patient bay, but patients cannot look into other bays. All pre-procedure preparation is done in the bay. The unit is equipped to meet the needs of children with developmental delays, including individualized support from the child life specialist and nurses and a specially equipped bay in which sound and lighting can be subdued to help reduce stimulation. Once the procedure is complete, patients return to one of the bays where their family can stay with them until discharge. Patients also remain on the unit throughout colonic motility studies, only leaving the bay to which they were admitted to have the catheter placed in the procedure room. All necessary medications and food challenges are administered while the child watches DVDs, reads or visits with family members. The child life specialist is available throughout the child’s stay if additional support is needed.

For more information on the Pediatric Gastroenterology and Nutrition Program at MGHfC, please visit massgeneralforchildren.org/gastroenterology or call 888-644-3211.

To schedule an appointment, please call the MGH/C Access and New Appointment Center at 888-644-3211.
MGHfC pediatric gastroenterologists see patients at the following community locations:

**Boston, MA**
MassGeneral Hospital for Children
55 Fruit Street
Boston, MA

**Cape and Islands, MA**
Spaulding Center for Children:
Eileen M. Ward Rehabilitation Center
Heritage Park Place, 280D Route 130, Suite 7
Foresdale, MA

**Concord, MA**
Emerson Hospital Center for Specialty Care
54 Baker Avenue Extension (formerly
196 Baker Avenue), Suite 302
Concord, MA

**Danvers, MA**
Endicott Medical Offices
104 Endicott Street, Suite LL02
Danvers, MA

**Foxborough, MA**
Brigham and Women’s/Mass General
Health Care Center
20 Patriot Place
Foxborough, MA

**Leominster, MA**
Leominster Pediatric GI Clinic
100 Hospital Road, Suite 4A
Leominster, MA

**Lexington, MA**
Lurie Center for Autism
1 Maguire Road
Lexington, MA

**Lowell, MA**
275 Varnum (medical building next door) 
Lung Specialist Clinic, Suite 203
Lowell, MA

**Nashua, NH**
Southern New Hampshire Medical Center
8 Prospect Street, 1st Floor
Nashua, NH

**Newton, MA**
Newton-Wellesley Hospital
2014 Washington Street
Newton, MA

**Salem, MA**
MGHfC at North Shore Medical Center
Gloria Wallis Building
57 Highland Avenue, 1st Floor
Salem, MA

**Waltham, MA**
Mass General West
40 Second Avenue
Waltham, MA

Full-Spectrum Orthopaedics Service Includes Sports Medicine

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Board certified in internal medicine, pediatrics and sports medicine, Dr. Kreher brings an acute knowledge of the physical and mental developmental process of young people to his practice as well as an understanding of the psychological aspects of restricting sports for athletes. He works with pediatricians, children and parents, physical therapists, athletic trainers and school administrators in addition to consulting as needed with specialists and subspecialists within MGH/C and Mass General to monitor child athletes in a way that ensures optimal development. For any child injured in a sports-related activity, he ensures the safest, fastest return to full participation in team or recreational sports and school in a manner consistent with the child’s interests and goals. He is available to pediatricians to assist in pre-participation physicals for children with less common medical issues such as bleeding disorders, single kidney or other rare medical conditions.

The incidence of sports-related concussions is estimated to be as high as 3.8 million annually. Emerging evidence indicates potential long-term repercussions from concussion in young athletes, triggering legislative changes in youth sports, new rules and changes in recommendations for concussion management. Dr. Kreher serves as a resource for pediatricians, young athletes, parents and coaches by providing assistance for concussion diagnosis and return to school and/or sports decisions as well as education about current state and national laws related to sports-related concussions.

**Pediatric Orthopaedics**
MGH/C Orthopaedics Service specialists work within multidisciplinary teams to provide comprehensive, personalized and family-centered care for every child with a musculoskeletal condition, whether acquired or congenital. Surgical expertise includes leading-edge techniques in foot and hip reconstruction, limb lengthening, spinal reconstruction, tendon transfers and muscular reconstruction, and skeletal trauma care in addition to sports medicine procedures. Leading-edge clinical trials have led to recent advances in materials and technologies for total hip and knee replacement, bone cancer treatment and athletic injuries; ongoing trials are currently enrolling patients.

For more information about the MGHfC Orthopaedics Service, Sports Medicine program or clinical trials, please visit massgeneralforchildren.org/Orthopaedics or call 617-726-8523.
Autism Research and Care Expand under New Director

The Lurie Center for Autism at Massachusetts General Hospital and MGH/C brings comprehensive multidisciplinary care and clinical research under one roof to advance the understanding and treatment of autism spectrum disorders (ASD). The center, previously known as the LADDERS (Learning and Developmental Disability Evaluation and Rehabilitation Services) program, was established in 1981 under the direction of Margaret Bauman, MD. As the result of a generous gift from the Nancy Lurie Marks Foundation and the vision of Christopher J. McDougle, MD, who was named as the center’s director in October 2011, the Lurie Center is now expanding its clinical research efforts and adult services. Dr. Bauman remains involved with the Lurie Center, and Ann M. Neumeyer, MD, continues as the medical director. Dr. McDougle was previously chairman of the Department of Psychiatry and executive director of the Institute of Psychiatric Research at Indiana University School of Medicine.

The Lurie Center’s approach to care is designed to provide lifetime treatment and support for patients and families. It combines evaluation and treatment by specialists important to the care of individuals with ASD—including neurology, developmental pediatrics, gastroenterology, psychiatry, psychopharmacology, occupational therapy, psychology, physical therapy and speech language pathology—with input from parents, teachers and other professionals to ensure a comprehensive, individualized care plan. The goal is to support individuals with ASD across the lifespan; services include evaluations for children ages 3 years and under who are suspected of having ASD, ongoing care and support, consultations for neurologic and gastrointestinal disorders that affect individuals with developmental disabilities and assistance coordinating care among medical specialists, agencies and therapists for adults with ASD.

Established relationships with Spaulding Rehabilitation Hospital ensure seamless integration of occupational, speech and physical therapy into care plans, and a partnership with McLean Hospital expedites hospitalization when necessary. As part of the Mass General system, the Lurie Center is closely connected to the YouthCare program, which provides therapeutic support to help children, teens and young adults with Asperger’s syndrome and related challenges develop social and independent living skills. Center experts also provide educational consulting and advocacy services for children and young adults and assist in transition planning for patients reaching adulthood.

According to Dr. McDougle, this is a critical time in the evolution of care for individuals with ASD and their families. According to the Centers for Disease Control and Prevention, 1 in 88 persons is affected with ASD, a rate that underscores the increasing importance of providing efficient, comprehensive medical evaluation and treatment for ASD patients across the lifespan. Having the Lurie Center based within Mass General provides the opportunity to develop a world-class continuum of medical care that can serve as a model for other areas of the country working to meet the increasing needs of patients with ASD.

In parallel with meeting the top priority of providing expert clinical care, the center’s specialists are working to identify the causal mechanisms of ASD and to develop safer and more effective treatments to mitigate the effects of ASD on quality of life.

In the coming months, the Lurie Center will launch clinical and basic research studies aimed at advancing knowledge...
of the causes and effects of autism spectrum and related disorders and accelerating the delivery of research discoveries into effective new treatment and care opportunities for individuals with autism. The center is also expanding efforts to train and mentor physicians, physicians-in-training and other health care providers with the best practices for care of adults with autism established at Mass General and advancing policy initiatives supportive of individuals with autism and their families at the state and national level.

To register for notifications of clinical research open for recruitment, please email LurieCenterResearch@partners.org or call 781-860-1711.

Pediatric Surgeon Recognized for Alveolarization Research

Cassandra Kelleher, MD, a MassGeneral Hospital for Children (MGH/C) surgeon specializing in general, thoracic and minimally invasive surgery, recently received the Landry Award for Neonatal Research at Massachusetts General Hospital. Dr. Kelleher’s lab focuses on alveolarization, or the formation of alveoli, with the ultimate goal of developing a therapeutic to induce lung maturation. Earlier this spring, Dr. Kelleher revealed preliminary findings on a novel post-natal model of alveolarization. Using this in-vitro model, she intends to identify relevant cell signaling pathways and to define the role of the extracellular matrix in alveolar formation. This information will then be leveraged in the development of therapeutics that stimulate alveolization to treat diseases such as bronchopulmonary dysplasia, congenital diaphragmatic hernia, cystic pulmonary malformations of the lung and emphysema.

In her surgical practice, Dr. Kelleher evaluates and treats patients ranging from premature infants through adolescents for a complete spectrum of surgical needs, with a particular focus on thoracic pathologies. These conditions, which are rare in the pediatric population and include airway malformations and cystic lung lesions requiring lobectomy or pneumonectomy, are optimally treated in a pediatric hospital like MGH/C, which can draw from the combined expertise of pediatric surgeons who understand the pathology in children, and adult thoracic surgeons who perform the procedures regularly. Dr. Kelleher is also skilled and experienced in laparoscopic and thoracoscopic surgical approaches to the treatment of lung, gastrointestinal, foregut and congenital diseases.

A mother herself, Dr. Kelleher finds her role as a surgeon has grown to include supporting patients’ mothers in issues surrounding breastfeeding and comforting anxious parents. She has also found that her gender makes some patients, including adolescent females requiring gynecologic surgery and individuals with ambiguous genitalia, feel more at ease.

Dr. Kelleher sees patients at MGH/C in Boston and at Brigham and Women’s/Mass General Health Care Center in Foxborough, Massachusetts.

MGH/C pediatric surgeons see patients at the following community locations:

- **Boston, MA**
  MassGeneral Hospital for Children
  55 Fruit Street
  Boston, MA

- **Concord, MA**
  Emerson Hospital Center for Specialty Care
  54 Baker Avenue Extension (formerly 196 Baker Avenue), Suite 302
  Concord, MA

- **Danvers, MA**
  Endicot Medical Offices
  104 Endicot Street, Suite LL02
  Danvers, MA

- **Foxborough, MA**
  Brigham and Women's/Mass General Health Care Center
  20 Patriot Place
  Foxborough, MA

- **Newton, MA**
  Newton-Wellesley Hospital
  2014 Washington Street
  Newton, MA

- **Salem, MA**
  MGH/C at North Shore Medical Center
  Gloria Wallys Building
  57 Highland Avenue, 1st Floor
  Salem, MA

For more information or to refer a patient, call 888-644-3211.
New Physicians

Adolescent Medicine

KATHRYN S. BRIGHAM, MD
MD degree: Harvard Medical School
Residency: Pediatrics, Massachusetts General Hospital
Fellowship/s: Adolescent Medicine, Boston Children’s Hospital
Board certification/s: General Pediatrics; eligible in Adolescent Medicine
Clinical interests: Primary care, contraception, sexually transmitted infections, menstrual disorders, reproductive endocrinology, eating disorders

CHRISTOPHER JOHN MCDOUGHLE, MD
Director, Lurie Center for Autism
MD degree: Indiana University School of Medicine
Residency: Psychiatry, Yale University School of Medicine
Fellowship/s: Child and Adolescent Psychiatry, Yale Child Study Center
Board certification/s: Psychiatry; Child and Adolescent Psychiatry
Clinical interests: Autism spectrum disorders, fragile X syndrome, tuberous sclerosis, Angelman syndrome, Williams syndrome, idiopathic mental retardation (intellectual disability)

PUNEETA ARYA, MD
MD degree: All-India Institute of Medical Sciences
Residency: Pediatrics, Mayo Clinic
Fellowship/s: Pediatric Cardiology, Boston Children’s Hospital; Pediatric Cardiac Imaging, Boston Children’s Hospital
Board certification/s: Pediatrics; Pediatric Cardiology
Clinical interests: Rheumatic heart disease, fetal cardiac imaging, cardiac MRI in congenital heart disease

REBECCA BEROUKHIM, MD
MD degree: Medical College of Wisconsin
Residency: Pediatrics, Tulane/Ochsner Combined Residency Program
Fellowship/s: Pediatric Cardiology, The Children’s Hospital of Denver; Pediatric Cardiology Noninvasive Imaging, Boston Children’s Hospital
Board certification/s: Pediatrics; Pediatric Cardiology
Clinical interests: Congenital heart disease, fetal cardiology, cardiac MRI, cardiac tumors, patient safety and improving quality of care, aortic disease

Dentistry

ZACHARY S. PEACOCK, MD, DMD
DMD degree: Harvard School of Dental Medicine
MD degree: University of California, San Francisco
Residency: University of California, San Francisco
Fellowship/s: Pediatric Oral and Maxillofacial Surgery, Massachusetts General Hospital
Board certification/s: Oral and Maxillofacial Surgery
Clinical interests: Orthognathic surgery (corrective jaw surgery), maxillofacial pathology, pediatric maxillofacial surgery, dental implants, dentoalveolar surgery (third molars, extractions), bone grafting

Cardiology

MICHELLE L. KATZ, MD
MD degree: University of Pittsburgh School of Medicine
Residency: Pediatrics, Yale-New Haven Hospital; University of Connecticut
Fellowship/s: Pediatric Endocrinology, Massachusetts General Hospital
Board certification/s: Pediatrics; Pediatric Endocrinology
Clinical interests: Type 1 and type 2 diabetes, growth disorders, thyroid problems, adrenal problems, problems of puberty, calcium and bone disorders

Endocrinology

To schedule an appointment, please call the MGH/C Access and New Appointment Center at 888-644-3211.
### Gastroenterology and Nutrition

**JESS L. KAPLAN, MD**  
**MD degree:** University of Massachusetts Medical School  
**Residency:** Pediatrics, MassGeneral Hospital for Children  
**Fellowship/s:** Pediatric Gastroenterology and Nutrition, MassGeneral Hospital for Children  
**Board certification/s:** Pediatrics; Pediatric Gastroenterology  
**Clinical interests:** Inflammatory bowel disease, Crohn’s disease, ulcerative colitis, celiac disease, clostridium difficile infection, eosinophilic GI disorders

### Pediatric Sports Medicine

**JEFF KREHER, MD**  
**MD degree:** University of Missouri School of Medicine  
**Residency:** Internal Medicine and Pediatrics, Indiana University School of Medicine  
**Fellowship/s:** Primary Care Sports Medicine, Boston University/Boston Medical Center  
**Board certification/s:** Internal Medicine; Pediatrics; Sports Medicine  
**Clinical interests:** Pediatric sports medicine, pediatric non-operative orthopaedics, pediatric fractures, overuse injuries, sports-related concussion, care of multisport athletes

### Imaging

**RAYMOND W. LIU, MD**  
**MD degree:** Harvard Medical School  
**Residency:** Pediatrics, Children’s Hospital of New York; Radiology, New York Presbyterian Hospital  
**Fellowship/s:** Interventional Radiology, Brigham and Women’s Hospital  
**Board certification/s:** Radiology  
**Clinical interests:** Pediatric interventional radiology, interventional oncology, cost effectiveness and operations efficiency in health care delivery systems

### Psychiatry

**LAURA C. POLITTE, MD**  
**MD degree:** University of North Carolina School of Medicine  
**Residency:** Massachusetts General Hospital/McLean Hospital  
**Fellowship/s:** Massachusetts General Hospital/McLean Hospital  
**Board certification/s:** Psychiatry  
**Clinical interests:** Autism spectrum disorders, developmental disabilities, psychiatric aspects of medical illness, psychopharmacology, psychotherapy

### Neonatology/Newborn Service

**MUHAMMAD ASLAM, MD**  
**Director of Education**  
**MBBS Degree:** Punjab Medical College  
**Residency:** Pediatrics, Lincoln Medical & Mental Health Center  
**Fellowship/s:** Neonatal-Perinatal Medicine, Boston Children’s Hospital  
**Board certification/s:** Pediatrics; Neonatal-Perinatal Medicine  
**Clinical interests:** Bronchopulmonary dysplasia, ducus arteriosus physiology, extracorporeal membrane oxygenation, persistent pulmonary hypertension ventilator strategies in neonates, respiratory diseases of newborns

### Pulmonary

**BENJAMIN A. NELSON, MD**  
**MD degree:** Georgetown University  
**Residency:** Pediatrics, MassGeneral Hospital for Children  
**Fellowship/s:** Pediatric pulmonology, MassGeneral Hospital for Children  
**Board certification/s:** Pediatrics; eligible in Pediatric Pulmonology  
**Clinical interests:** Asthma, chronic cough, bronchoscopy — including interventional procedures, congenital lung diseases, bronchopulmonary dysplasia, cystic fibrosis
CME Opportunities

**Pediatric Transplant Seminar**

**OCTOBER 22, 2012**

**Location:**
Massachusetts General Hospital
O’Keeffe Auditorium

**Primary Care Pediatrics**

**DECEMBER 5-7, 2012**

**Location:**
Marriott - Long Wharf, Boston, MA

**Emergencies and Procedures in Pediatrics**

**DECEMBER 14-16, 2012**

**Location:**
Marriott - Long Wharf, Boston MA

For more information about our continuing medical education programs, visit massgeneralforchildren.org/CME