

NewYork-Presbyterian Morgan Stanley Children's Hospital

Focus on Pediatric Orthopaedics

Affiliated with Columbia University College of Physicians and Surgeons

Advancing pediatric orthopaedic care and research to improve every child's quality of life

INSIDE SPRING 2009

2 Leg Lengthening for Younger Patients

Meet the Staff

Michel Diab, MD, Fellow

3 Team Highlights

Wine Tasting Raises Funds as well as Glasses

Scoli Score

Electronic Medical Records

4 Events

The Division of Pediatric Orthopaedics

New Stapling Treatment at Morgan Stanley Children's Hospital May Help Reverse Scoliosis

NewYork-Presbyterian Morgan Stanley Children's Hospital is one of a select handful of hospitals in the country to offer spinal stapling, a new, innovative treatment for scoliosis patients who

have progressive scoliosis at a young age. Spinal stapling modulates growth allowing correction of curves without fusion and without the necessity of multiple procedures.



This still growing patient had a nearly 40 degree thoracic curve. After discussing the treatment options which included traditional bracing, the family opted to undergo thoroscopically assisted spinal stapling by Dr. Michael Vitale. In a two hour procedure, six staples were implanted on the convex side of her curve. In addition to gaining immediate improvement, the curve should continue to straighten as the patient grows.

"Stapling not only stops scoliosis from getting worse, but can even correct the curve. We are on the cusp of a new era in the treatment of scoliosis. For the first time, we have a way to potentially reverse the scoliosis."

- Dr. Michael Vitale, Chief of Pediatric Spine and Scoliosis Surgery at NewYork-Presbyterian Morgan Stanley Children's Hospital and the Ana Lucia Associate Professor of Clinical Pediatrics and Orthopaedic Surgery at Columbia University College of Physicians and Surgeons.

Spinal stapling is a minimally invasive surgery that involves implanting inch-long metallic staples across the growth plates of the spine. By tethering the growth on one side of the scoliotic

[continued on page 2]

New York's First Early Onset Scoliosis Center

Currently seeing about 400 patients per year under the age of five with scoliosis, the NewYork-Presbyterian Morgan Stanley Children's Hospital is a world leader in the treatment of Early Onset Scoliosis. The Children's Hospital is proud to introduce New York's first center dedicated to the treatment and research of Early Onset Scoliosis, led by Michael G. Vitale, MD, MPH.

congenital problems, neuromuscular disorders, myelomeningocele or muscle disease. The complex care required by children diagnosed with early-onset scoliosis has tended to limit their treatment to children's hospitals offering a convergence of strong orthopaedic, pulmonary and ICU facilities. For an appointment call 212-305-4565, or visit www.childrensorthopaedics.com to learn more.

 COLUMBIA UNIVERSITY
College of Physicians
and Surgeons

 NewYork-Presbyterian
Morgan Stanley Children's Hospital

Early Onset Scoliosis is a rare occurrence sometimes associated with other diagnoses including

New Stapling Treatment *[Continued from the cover]*

curve, the spine can actually grow straighter in actively growing children. Made of an advanced, temperature-sensitive metal alloy, the staples are implanted with the assistance of a video camera called a thoracoscope. This scope is inserted into the chest cavity through a ½ inch incision and the surgeon then inserts the staples through separate, small incisions views while watching the image from the thoracoscope on a video monitor. The procedure, which leaves only minimal scarring, is available

to children with progressive moderate scoliosis (less than 30 degrees) who are still growing.

To read more patient success stories, visit www.childrensorthopaedics.com - and link through Spinal Stapling. Additionally, please visit http://www.vertebraalstapling.com/Real_Stories.html for more information.

Leg Lengthening For Younger Patients

"Just turn the rod." It was a simple fact of life for Teresa when she was 8 years old. Teresa was wearing an external fixator on her left leg with a metal rod inserted into the bone that needed to be turned four times a day. Teresa even brought the wrench to school for the midday turn. Her friends also took the apparatus in stride, and stayed by her side during recess when she couldn't go out on the playground. Eventually she was out of the wheelchair and off the crutches, and managed to do a lot of her usual activities like swimming, while wearing the fixator for 11 months after surgery.

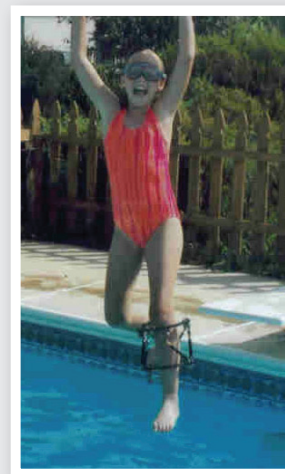
Teresa was diagnosed at birth with a leg discrepancy - a quite common occurrence. As she was growing her pediatrician treated her with shoe lifts to help level out her gait. But Teresa's difference in leg length was more than the acceptable range and that was enough to warrant specialty care. She was referred to Drs. David P. Roye, Jr. and Michael G. Vitale who performed a leg-lengthening operation in which the outer portion of the bone is cut and an external fixation device is attached to either side of the cut bone with pins through the skin. The fixator is gradually adjusted so the leg can be lengthened over time.

When Teresa had a growth spurt three years later her legs became uneven again. Since Teresa was approaching puberty when her growth would stop, there was little time to make the necessary correction. This

time Dr. Vitale decided to slow the growth of her "good" leg to allow her left leg time to "catch up." This was accomplished by scraping the growth plate in her right leg. One month after surgery, eleven year old Teresa was back in the pool and looking forward to resuming her figure skating routines.

"She's been a trouper," described Anne Marie, Teresa's mother. "She's always been a determined little girl, and that spunk really helped."

When the doctors discussed surgery and told her that they see better results when their patients are younger, she found it hard to believe. "But they were right," said Anne Marie. She healed quickly and doesn't remember any hardship through the procedures. "In fact she loved the hospital stay because they had arts and crafts and delivered her favorites foods." Anne Marie also felt grateful for their good fortune in finding these doctors, being treated with such care, and knowing that Teresa's condition would heal.



Meet the Staff: Michel Diab, MD, Fellow

Michel Diab, MD is welcomed as the Division's first Pediatric Orthopaedic Fellow. After finishing medical school and an orthopaedic residency, Dr. Diab completed a Pediatric Orthopaedic Fellowship at the Timone Children's Hospital in Marseille, France. He has received specialty diplomas in Microsurgery and Clinical Gait Analysis and has a research study accepted for publication on a new technique of Percutaneous Epiphysiodesis using Radioquency.

As a clinical fellow, Dr. Diab is responsible for assisting in the division's extensive research efforts as well as assisting with medical education and direct patient care in the in-patient and out-patient settings under the supervision of the Director Joshua E. Hyman, MD and the faculty.

Team Highlights

Francis Y. Lee, MD has been awarded his second RO1 research grant from the National Institutes of Health – an accomplishment for only a handful of orthopaedic surgeons in the country. The newly awarded grant project will focus on the specific targeting of biomolecular pathways which induce inflammatory bone loss in response to biomaterials. It is hoped that this will lead to the development of clinical effective and safe treatments for inflammatory bone loss due to osteoarthritis, rheumatoid arthritis and orthopaedic and periodontal implants.

David P. Roye, Jr., MD was presented with the 2009 American Academy of Orthopaedic Surgeons' Humanitarian Award during the annual meeting in February. In sponsoring Dr. Roye's nomination, William N. Levine, MD, orthopaedic surgeon, wrote "David is legendary for his kindness, intellect, and surgical prowess, but it is his humility and unique selflessness that separates him from so many of his peers." Dr. Roye was selected from over fifty nominees.

Benjamin D. Roye, MD and **Joshua E. Hyman, MD** were recently named to the Cambridge Who's Who.

Michael Vitale, MD, MPH has been appointed as Chair of two major medical symposia on the latest in spine treatments - Biomet's Meeting in March, and Stryker Spine's meeting in May; and has been nominated to the Executive Board of the Chest Wall and Spinal Deformity Study group

Francis Y. Lee joined nearly 70 orthopaedic surgeons, researchers and patients at the American Academy of Orthopaedic Surgeons 2009 annual Research Capital Hill Days in Washington DC. Visiting US Senators and the National Institute of Health, Dr. Lee discussed how critical medical research funding is to improving the lives of patients. More at www.aaos.org/researchdays.

The Scoliosis Center of New York now boasts the addition of the AMIL casting table to launch our casting program for children with idiopathic infantile scoliosis.

The Pediatric Orthopaedic Research Team was awarded a Doris Duke research fellow for 2009-2010.

Wine Tasting Raises Funds as well as Glasses

Grateful parents showed their support of the doctors who treat their children by attending a fundraising event to raise funds to further pediatric orthopaedic research. The event held at Bacchus Wine Store in New York City, featured a tasting of wines from around the world. Participants shared stories with each other about the care their family has received, as they reviewed a list of almost forty research projects currently underway by their team of Pediatric Orthopaedic Surgeons to enhance care and treatment.

A lively auction was held during the Wine Tasting Fundraiser to win a Dinner with Your Favorite Doctor, and helped raise over \$10,000 at the event. Pictured are favorite doctors l to r: Benjamin Roye, MD, Joshua Hyman, MD, Michael Vitale, MD, David Roye, Jr., MD



Scoli Score

The NewYork-Presbyterian Morgan Stanley Children's Hospital is one of a handful of sites in the country selected to review a new diagnostic test based on a patient's DNA to predict the risk of a child's scoliosis progressing into adolescence. The test called "Scoli Score," developed by Axial Biotech, is currently being tested for Adolescent Idiopathic Scoliosis using a child's saliva. The sample is analyzed for DNA markers associated with the likelihood for scoliosis progression. Our Pediatric Orthopaedic Research team is leading the review to perfect this tool for Early Onset Scoliosis.

Electronic Medical Records

Launching well before the US governments' goal of 2014, the Pediatric Orthopaedic Division has converted to an all-electronic medical record system. A model for the rest of the New York Presbyterian hospital, our Division was chosen as the first area to make the change. Heralded as a tremendous step for patient safety and improved efficiency, our patients will begin to see the benefits of electronic medical records immediately with improved scheduling, record keeping and coordination of tests and results.

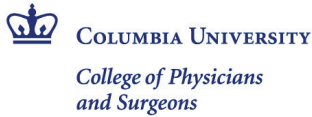
Events:

CME coming this Fall - To Westchester County, New York State. Topics will include issues and latest treatments for pediatrics with musculoskeletal concerns. Check www.childrensorthopaedics.com for details.

Yankees Are in Good Hands - Christopher Ahmad, MD, Assistant Professor of Orthopedic Surgery at Columbia University Physicians and Surgeons and Assistant Attending of Orthopaedic Surgery at NewYork-Presbyterian, has been appointed Head Team Physician for the New York Yankees, and has recently become a member of Major League Baseball Team Physicians Association. His personal focus is on concerns of throwing athletes – shoulders, elbows and knees, and he has received awards for improving elbow surgery in baseball pitchers. Dr. Ahmad also serves as Director of the Center for Pediatric and Adolescent Sports Medicine.

Making My Moves Marathon - New Date! Join us November 14th for a fundraising event that will keep the kids moving. This four hour marathon will feature a DJ for dances, games and activities. Participants are asked to help raise funds for pediatric orthopaedic research that is finding new ways to reduce pain and improve mobility. To register and download a sponsor sheet – visit www.childrensorthopaedics.com

Serving the Tri-State area with 10 convenient locations - For an appointment at any of our locations call: **212-305-4565**.



The Division of Pediatrics Orthopaedics

David P. Roye, Jr., MD – Chief
Francis Y. Lee, MD, PhD
Joshua E. Hyman, MD
Michael G. Vitale, MD, MPH
Christopher S. Ahmad, MD

Benjamin D. Roye, MD, MPH
Amber E. Sentell, PA
Rachel Lyons, DrNP
Nicole Ekstrom, CPNP, RN, ATC

Visit our website at childrensnyp.org/mschony or www.childrensorthopaedics.com

See inside for the
latest in Pediatric
Orthopaedics!

New York-Presbyterian Morgan Stanley Children's Hospital
Division of Pediatric Orthopaedics
3959 Broadway, 8th Floor
New York, NY 10032

