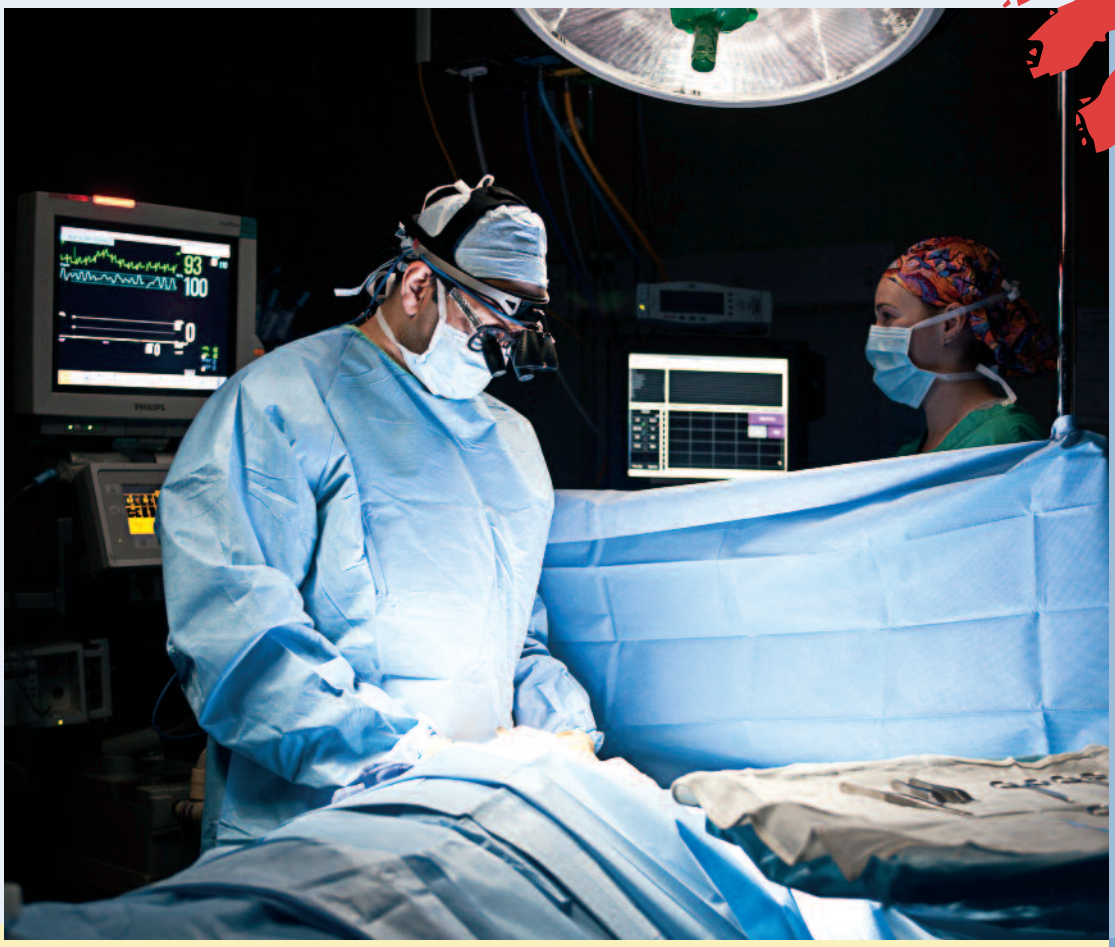
Winter 2011

In the FOREFRONT

from St. Christopher's Hospital for Children



Prithvi Narayan, M.D., Chief of the Section of Neurosurgery, performs surgery on a young patient. Neurosurgical procedures offered at St. Chris include treatments addressing epilepsy and other seizure disorders as well as brain and spinal cord trauma, injury or deformity.

Comprehensive Neurosurgery Services Available at St. Christopher's Hospital for Children

The Section of Neurosurgery at St. Christopher's Hospital for Children provides comprehensive pediatric neurosurgery services for problems relating to the brain, spinal cord and peripheral nerves. Working collaboratively with other pediatric subspecialties such as neonatology, neurology and emergency services, the Section ensures high-level, coordinated care for infants, children and adolescents.

Because concussions are a big concern among child athletes of all levels, the Section also provides services for children who have suffered head injuries. The Hospital is working to develop a concussion testing program to help physicians provide guidelines and counseling to patients that are aspiring to return to athletics.

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Breakthrough Discoveries In Medical Research For Children

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Comprehensive Neurosurgery Services Available at St. Christopher's Hospital for Children

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"There is increasing awareness that concussive injury is not benign," says Prithvi Narayan, M.D., Chief of the Section of Neurosurgery. "It can have far-reaching effects in terms of cognitive function and memory loss."

As a Level I Trauma Center, St. Christopher's offers pediatric neurosurgery as an integral component of trauma services. The Hospital has the capabilities to care for almost all levels of brain and spinal trauma.

The Section of Neurosurgery also works closely with the Neonatal Intensive Care Unit in caring for newborns with brain and spinal cord injuries or deformities. Conditions treated include intraspinal problems such as tethered spinal cord and open and closed spina bifida, as well as brain conditions such as hydrocephalus and intraventricular hemorrhage.

Another major area of care provided by the Section of Neurosurgery involves surgical treatment for epilepsy and other seizure disorders. The range of surgical options for seizure disorders includes the following:

- *Focal resections*—excision of small areas responsible for seizures
- *Hemispherotomy*—disconnection of a cerebral hemisphere
- *Corpus callosotomy*—disruption of the connection between the brain's two hemispheres
- *Vagus nerve stimulation*—the insertion of a pulse generator that sends electrical impulses to disrupt the formation of seizures

In conjunction with the Section of Plastic and Reconstructive Surgery, the Section of Neurosurgery provides treatment of craniofacial deformities using advanced surgical techniques, including minimally invasive and endoscopic techniques. The Section also works closely with the Section of Oncology to treat cancerous and benign brain and spinal cord tumors.

Neurosurgeons at St. Christopher's utilize sophisticated equipment and technology, including microsurgery, neuroendoscopy and minimally invasive surgery using an intraoperative navigation system. Neurosurgeons work with experienced operating room staff who are used to caring for children with complicated neurosurgical problems.

The care received by David Hamilton illustrates the advantages of the close collaborative relationships both within and between sections at St. Christopher's Hospital for Children. Born at 26 weeks, David required care for a variety of conditions, including chronic lung disease and intraventricular hemorrhage. Now a year old, he has undergone four shunt-related surgeries.

"David's had a lot of challenges and it's amazing how well he has been taken care of," says his father, Brandon. "Because his conditions are treated by different doctors it's key that his care is so well coordinated."

"We feel like everyone at the hospital knows David and what's going on with him," says his mother, Susan, who reports that David is thriving at home. "The doctors communicate with one another and even coordinated surgeries to happen at the same time."

"The Neurosurgery team is so caring," she adds. "Dr. Narayan is very accessible, and we know the staff on a first-name basis. Everyone at St. Chris allowed us to be very involved in David's care, and made sure we were confident in our ability to care for him once he was discharged." ■

For more information regarding services provided by St. Christopher's Section of Neurosurgery, please call 215-427-5196.

David Hamilton, pictured with parents Brandon and Susan, has undergone several neurosurgery procedures at St. Christopher's Hospital for Children.

Neurosurgery Consultation Available at Bucks County Satellite Location

Neurosurgery appointments are being offered at St. Christopher's multispecialty care center in Bucks County, Pennsylvania. Prithvi Narayan, M.D., Chief of the Section of Neurosurgery, sees patients there on Monday and Friday afternoons.

"We wanted patients to have access to neurosurgery services without having to travel to the city," says Dr. Narayan. "This makes pre- or post-surgical visits much more convenient for children and their families."

One of five satellite locations, the Bucks County office is located at 301 Oxford Valley Road, Yardley, PA. The office can be reached at 215-369-3555. ■

Toddler Transformed by Hydrocephalus Treatment

Jaelyn Pagan was diagnosed with hydrocephalus when she was five months old. Her doctor felt that surgery was not necessary at that point. Jaelyn showed some signs of delayed development, and was referred for early intervention services.

This past summer, as the then 2-year-old was starting to walk, she fell and injured her head. Her parents, Amber and Julio, took Jaelyn to the local emergency room near their home in Washington Township, New Jersey.

The ER physician determined that Jaelyn had fractured her skull, and was also concerned with the degree of hydrocephalus he saw. He recommended that she be transferred to St. Christopher's Hospital for Children to receive specialized pediatric neurosurgical care.

At St. Christopher's, Jaelyn underwent an MRI of the brain, which showed a tectal plate glioma and aqueductal stenosis. The MRI was examined by Prithvi Narayan, M.D., Chief of the Section of Neurosurgery. Dr. Narayan wanted to quickly address the hydrocephalus, and chose to perform a less invasive procedure than inserting a shunt.

The procedure, called endoscopic third ventriculostomy, relieves pressure by making an opening in the floor of the third ventricle. This serves to divert fluid out of the blocked ventricular system and into the interpeduncular cistern, the normal space for cerebrospinal fluid.

"Ideally, this is a one-time procedure," says Dr. Narayan. "It avoids risks associated with ventricular shunts, such as breaks, blockage, infection and overdrainage."

Jaelyn was discharged from the hospital four days after her surgery.

"The change in Jaelyn has been amazing," says her mom, Amber. "She's walking, talking—she's a completely different child."

"Dr. Narayan was wonderful," she adds. "I truly felt like he cared for Jaelyn as if she were his own family. I never doubted that she was receiving the best care possible."

Amber was also grateful that St. Christopher's critical care coordinator was able to get her insurance issues taken care of so quickly. "They were able to secure approval in two weeks, which is unheard of," she says.

Amber, who is attending nursing school while working in her father's construction business, has been so inspired by her experience at St. Christopher's that it has influenced her career choice.

"I want to go into pediatrics so I can help other children the way Jaelyn was helped at St. Chris," she says. ■

Chief of Neurosurgery Prithvi Narayan, M.D., shares a moment with Jaelyn Pagan, who was treated for hydrocephalus.

Emergency Room Capacity Expanded to Meet High Demand

St. Christopher's Hospital for Children recently expanded and renovated the Emergency Department in order to accommodate the increasing demand for pediatric emergency services. The hospital has added 14 new private exam rooms and approximately 4,300 square feet to the existing Emergency Department. The renovated 17,300-square-foot unit includes 36 exam rooms in addition to the trauma bay.

New features include dedicated single exam rooms for specialty care and psychiatric evaluations, as well as a second exterior entrance to improve patient flow through the department. Renovated patient exam rooms feature televisions and DVD players to help children feel more at ease. Each room is also conveniently located near a central nurses' station.

As a Level I Trauma Center, St. Christopher's Hospital provides comprehensive care during medical or trauma-related emergencies to more than 70,000 children and adolescents annually. The Emergency Department treats patients 24 hours a day, seven days a week, and is staffed by board-certified pediatric emergency medicine physicians. Pediatric and surgical subspecialty care is available as needed on a consultative basis.

To reach the Emergency Department physician referral line, call 215-427-6812. ■

The renovated 17,300-square-foot unit includes 36 exam rooms in addition to the trauma bay.

Coordinated Care for Spasticity and Spina Bifida

The Section of Neurosurgery at St. Christopher's Hospital for Children actively participates in the Hospital's multidisciplinary programs, including those focusing on spasticity and spina bifida.

The Spasticity Management Program addresses abnormal skeletal muscle performance in children with disorders of the nervous system such as cerebral palsy, acquired traumatic brain injury or spinal cord injury.

"Children can develop severe deformities and contractures as a result of these conditions, and our goal is to treat patients as early as possible in order to maximize quality of life," says program coordinator Kim Fudge, P.A.-C. "We prefer to be proactive rather than reactive."

The program draws on expertise from disciplines including neurology, neurosurgery, orthopedic surgery, physical therapy, occupational therapy and social work. Treatments can include oral medications, intrathecal baclofen therapy, Botox injections, tendon releases and scoliosis management. Therapy emphasizes increasing comfort, allowing for easier caregiving, and, when appropriate, improving ambulation and the ability to perform activities such as bathing and dressing.

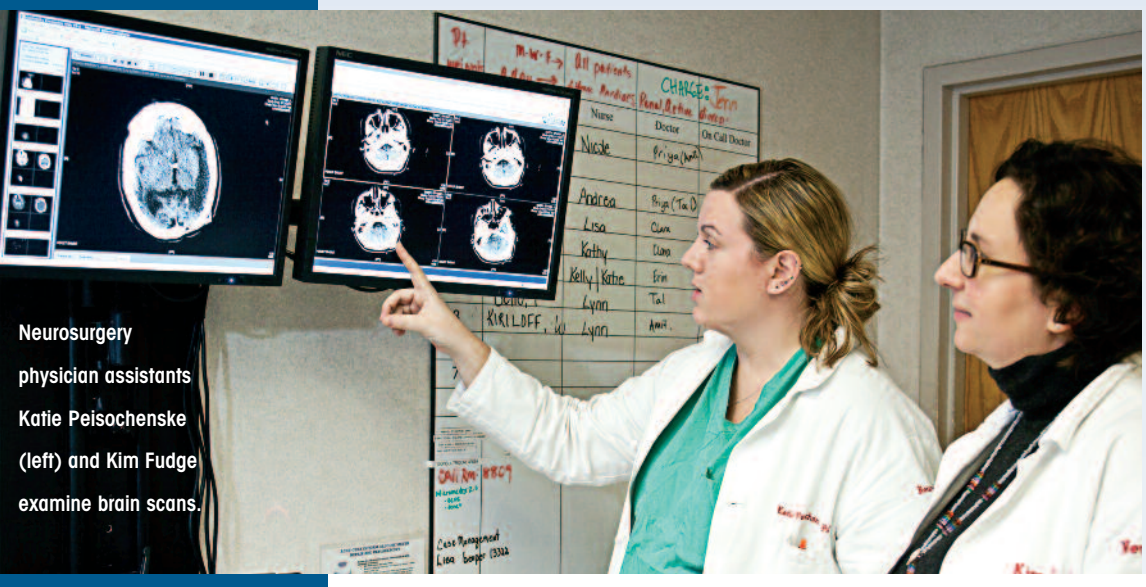
In order to maximize convenience for families, appointments with multiple specialists, as well as testing and therapy, are arranged to occur during the same visit.

The Spina Bifida Program provides multidisciplinary coordinated care for children with neural tube defects including myelomeningocele, lipomyelomeningocele and encephalocele. As these conditions involve an exposed or tethered portion of the spinal cord, care encompasses neurosurgery, orthopedic surgery, urology, neurodevelopmental pediatrics and physical therapy. A dietician and social worker also work with families to provide education and guidance. Children with spinal cord tumors and traumatic injuries are also treated.

The multidisciplinary team begins care at the time of the neurosurgical repair shortly after birth and works with the child and family over time in monitoring and treating subsequent issues. Spina bifida therapy addresses physical and mobility difficulties, as well as neurodevelopmental disabilities and school issues. Treatments include shunt implantation and revision for hydrocephalus, spinal cord tether releases, rarely posterior fossa decompression, bladder catheterization, bladder augmentation surgery, and kidney function evaluation.

As with spasticity care, appointments are arranged so that medical testing and visits with specialists occur on the same day. This program is coordinated by the Section of Developmental Pediatrics, headed by Maureen Fee, M.D., J.D., Associate Professor of Pediatrics at Drexel University College of Medicine. ■

For more information about the Spasticity Management Program, please call 215-427-8190. For more information about the Spina Bifida Program, please call the Section of Developmental Pediatrics at 215-427-5531.



Neurosurgery physician assistants Katie Peisochenske (left) and Kim Fudge examine brain scans.

Ronald McDonald House Offers Lodging When Home Is Too Far

Dealing with the illness of a child is enough of a challenge without having to worry about making a lengthy commute while a child receives inpatient care. For families who live more than 25 miles from the Hospital, the Ronald McDonald House on the campus of St. Christopher's Hospital for Children offers lodging in a homelike environment.

The Ronald McDonald House offers 17 private guest bedrooms, a large kitchen and dining area, a living room with a television, children's play areas, and a video game center and recreation room, among other amenities. Volunteers provide fresh-cooked dinners each night, and families can find support from others who are facing similar challenges, as well as from a social worker available on weekdays.

Families are asked to pay a nominal fee to use the house, but they are not turned away if they are unable to pay. In 1974, Philadelphia became the home of the very first Ronald McDonald House. Today, there are more than 286 Ronald McDonald Houses located around the world. For more information, call 215-291-0907. ■

Michael J. Suchar, D.D.S., Appointed Clinical Director of the Department of Dental Medicine

Michael J. Suchar, D.D.S.

Michael J. Suchar, D.D.S., has assumed the role of Clinical Director of the Department of Dental Medicine at St. Christopher's Hospital for Children. Dr. Suchar has been at St. Christopher's since starting his Pediatric Dental Residency at the Hospital in 1982. During his 26-year career, Dr. Suchar has cared for hundreds of dental patients and served as a teacher and mentor to many dental residents and medical students.

An Assistant Professor of Pediatric Dental Medicine at Drexel University College of Medicine, Dr. Suchar has been responsible for resident clinical supervision at St. Christopher's, including developing a lecture series on pediatric dentistry for first-year pediatric dental and medical residents. His clinical interests include early infant dental care.

Dr. Suchar is a member of the American Academy of Pediatric Dentistry and the American Dental Association as well as a Diplomate of the American Board of Pediatric Dentistry. He graduated with a Doctor of Dental Surgery from Temple University School of Dental Medicine. ■

Eric Douglas Thompson, M.D., Appointed Chief of the Section of Hospital Medicine

Eric Douglas Thompson, M.D.

Eric Douglas Thompson, M.D., has been named Chief of the Section of Hospital Medicine and Director of Inpatient Services at St. Christopher's Hospital for Children.

Dr. Thompson completed his Pediatric Residency and Chief Residency at St. Christopher's Hospital for Children. In 2000, he was appointed Medical Director of St. Christopher's Pediatric Generalist Service. During his tenure, Dr. Thompson has played an integral role in developing a true hospitalist model of care at St. Christopher's.

An Assistant Professor of Pediatrics at Drexel University College of Medicine, Dr. Thompson is responsible for the education and supervision of pediatric residents and medical students. He received his medical degree from Temple University School of Medicine and recently received his Masters of Medical Management from Carnegie Mellon University in Pittsburgh.

Dr. Thompson is board-certified in Pediatrics and is a member of the American Academy of Pediatrics, American College of Physician Executives, Academic Pediatric Association and Society of Hospital Medicine. ■

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"Now, even those who don't like small spaces can be more easily diagnosed with high-quality MRI scans."

Eric Faerber, M.D.,
Clinical Director,
Department of Radiology

New MRI Provides Advanced Technology and Comfort

St. Christopher's Hospital for Children has added an advanced diagnostic tool for helping physicians reach confident diagnoses while simultaneously helping children feel more comfortable during MRI procedures.

The advanced imaging capabilities of the new Optima MR450w system from GE Healthcare provide faster and crisper scans. With a larger, 70-centimeter opening (or bore), the equipment is also more comfortable for pediatric patients of all sizes, especially those who may be anxious about the procedure.

"Some patients, particular younger pediatric patients, can present special challenges when undergoing MR testing," says Eric Faerber, M.D., Clinical Director of the Department of Radiology at St. Christopher's. "Now, even those who don't like small spaces can be more easily diagnosed with high-quality scans."

The new MRI also caters to children by featuring a CinemaVision audiovisual system, which allows them to watch their favorite television program or DVD during the procedure.

Scans are completed more quickly thanks to larger fields of view and rapid image sequences. This may lead to increased patient comfort and a decreased wait time because a larger number of patients can be accommodated in a shorter time period.

The new MRI complements and extends the range of quality diagnostic services offered by St. Christopher's Hospital for Children and enhances physicians' ability to confidently diagnose and treat patients with even the most complex health conditions.

"We can now perform certain vascular studies without contrast, which is particularly helpful for patients for whom contrast poses a risk, including those with kidney disease," says Dr. Faerber.

The system also benefits the Regional Fetal Evaluation Center since the larger opening makes fetal MRI scans more comfortable for expectant mothers. In addition, a fully removable patient table allows patients to be quickly and efficiently removed from the MRI room in case of an emergency. ■

To refer patients or consult with a member of the Radiology Department, please call 215-427-5319.

St. Christopher's new MRI system provides faster, crisper scans in a more comfortable, open setting.