



# News from Children's Hospital of New Jersey

at Newark Beth Israel Medical Center • A newsletter for physicians • Winter 2008

Dear Physician,



I am pleased to share with you some accomplishments of our staff and programs at Children's Hospital of New Jersey at Newark Beth Israel Medical Center in 2007.

- ❖ Stanley Einzig, M.D., pediatric cardiologist, was listed in the "Guide to America's Top Cardiologists" which published its results in October 2006.
- ❖ Joel Hardin, M.D. was appointed to the Board of Directors, American Heart Association (AHA), Northern New Jersey Region. Dr. Hardin will participate in AHA program development and promote advocacy.
- ❖ Patricia Morgan-Glenn, M.D., Medical Director of Metro Regional Diagnosis and Treatment Center for Child Abuse & Neglect, CHNJ, was named President of the American Professional Society on the Abuse of Children (APSAC)- NJ Chapter. She was also selected as one of The Network Journal's Tenth Annual "40 Under Forty" Achievers.
- ❖ Jeremias Murillo, M.D., Medical Director of Infection Control and Epidemiology and Director of Pediatric Infectious Diseases at CHNJ, was interviewed (April 25) by the Wall Street Journal regarding our success controlling MRSA infections in the NICU and adult ICU.
- ❖ The combined Internal Medicine and Pediatrics Residency at the CHNJ and Newark Beth Israel Medical Center received its initial accreditation from the ACGME.
- ❖ The Pediatric Emergency Department initiated a Child Life Program for the department with assistance of funds raised by the Hoop-a-Palooza Organization.
- ❖ Newark Beth Israel's "Partners in Progress Awards Dinner" honored Joel Hardin, M.D., Director of Cardiology, and Joanne Starr, M.D., Director of Pediatric Cardiac Surgery, for their commitment to the CHNJ.

Timothy S. Yeh, M.D.

Chairman of Pediatrics, Physician-in-Chief  
Director of Critical Care Medicine,  
Children's Hospital of New Jersey at  
Newark Beth Israel Medical Center

## Progress in Childhood Cancer Treatment Greatly Improves Survival Rates and Quality of Life Issues

Medical Director of Saint Barnabas Health Care System's Valerie Fund Children's Centers for Cancer and Blood Disorders supports continued pediatric cancer research



Peri Kamalakar, M.D., Medical Director of the Valerie Fund

The childhood cancer community of survivors, parents, patients, and health care providers marched in Washington D.C. on June 26 for "Reach the Day: Conquer Childhood Cancer," a national day of awareness for childhood cancer. Since the mid-1950s, research has improved the survival rates for childhood cancer from less than 10 percent to almost 80 percent overall.

Now that the outlook for children with cancer has greatly improved, a major emphasis for the past two-dozen years has been on improving the quality of life for patients cured of cancer during childhood.

"Multiple medical breakthroughs have transformed childhood cancer from a virtual death sentence into a disease that children can increasingly be expected to survive with minimal side effects in a great majority of cases," says Peri Kamalakar, M.D., Medical Director of the Valerie Fund Children's Center for Cancer and Blood Disorders at Children's Hospital at Newark Beth Israel Medical Center, The Children's Hospital at Monmouth Medical Center and Saint Barnabas Medical Center. "Surpassing the 80 percent survival rate is an important step toward our ultimate quest of curing all children with this disease."

According to the Children's Oncology Group (COG), the largest pediatric oncology research group in the world, the definition of "cure" for children goes beyond achieving the disappearance of cancer to include psychosocial, educational, and occupational reintegration of the child into a successful life. All three Valerie Fund sites are members of the COG and participate in ongoing pediatric cancer research.

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**Children's Hospital  
of New Jersey**



at Newark Beth Israel Medical Center  
Saint Barnabas Health Care System

# Children's Hospital of New Jersey Treats One of the Highest Volumes of Autistic Patients In NJ



*Vinod Goyal, M.D.,  
neurodevelopmental  
pediatrician and Director  
of the Division of  
Developmental Pediatrics  
at Children's Hospital  
of New Jersey*

After the largest U.S. study of childhood autism recently found that New Jersey had the nation's highest per-capita prevalence of autism, the State Assembly recently approved legislation to promote early detection, autism research, and the creation of a New Jersey autism registry.

The study found that nationally 1 in 152 children have the disorder, while one in every 94 children in New Jersey has autism. For boys, the rate is one in every 60.

"New Jersey is at the forefront of a troubling trend and these figures should be understood as a public health crisis," says Vinod Goyal, M.D., neurodevelopmental pediatrician and Director of the Division of Developmental Pediatrics at Children's Hospital of New Jersey, who treats one of the highest volumes of children with autism in the state. "It is our hope that the approved legislation will further more research into the causes of autism."

April is National Autism Awareness Month, and this complex disorder prevents children and adolescents from interacting normally with others and affects almost every aspect of social and psychological development. While children with autism share some common signs, autism is a disorder that affects each individual differently and varies in intensity from mild to severe.

Autism, also called autistic disorder, is the result of a neurological disorder that typically appears in early childhood, usually before age 3.

## Recognizing Autism Spectrum Disorders

Not until the middle of the twentieth century was there a name for a disorder that can cause disruption in families and challenges for many children. According to the National Institute of Mental Health (NIMH), parents are usually the first to notice unusual behaviors in their child. In some cases, the baby seemed "different" from birth. The first signs of an autism spectrum disorder can also appear in children who seem to have been developing normally.

The following are possible pediatric indicators of Autism Spectrum Disorders according to the NIMH:

- ❖ Does not babble, point, or make meaningful gestures by 1 year of age
- ❖ Does not speak one word by 16 months
- ❖ Does not combine two words by 2 years
- ❖ Does not respond to name
- ❖ Loses language or social skills
- ❖ Poor eye contact
- ❖ Doesn't seem to know how to play with toys
- ❖ Excessively lines up toys or other objects
- ❖ Is attached to one particular toy or object
- ❖ Doesn't smile
- ❖ At times seems to be hearing impaired



## Comprehensive Care for Autism at Children's Hospital of New Jersey

Children's Hospital is the state's premier hospital caring for children, with specialized services to treat ill and injured children from newborn to adolescent years. As a hospital devoted only to children, Children's Hospital of New Jersey provides a comprehensive program, through the Division of Child Development and Behavior, designed for children with any abnormality in growth, development or behavior.

The program provides evaluation, diagnostic work-up, treatment and referrals to special services or schools if needed for children with conditions including mental retardation, speech problems, learning disabilities, autism, or attention deficit disorder. Two developmental pediatricians, both board certified in pediatrics and neurodevelopmental disabilities; a pediatric nurse practitioner, nurse coordinator, and a full child evaluation center including social worker and three child psychologists form the core of this department, which is complemented by specialists.

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## Comprehensive Services For Developmental Delays Offered By The Children's Hospital Assessment And Treatment Team



Infants, children and adolescents who are experiencing developmental delays can find supportive, comprehensive evaluation and treatment through The Children's Hospital Assessment and Treatment Team (CHATT), at Children's Hospital of New Jersey at Newark Beth Israel Medical Center. The medical staff also offers diagnosis and treatment in its Fetal Alcohol Spectrum Disorders Diagnostic Center.

**The multidisciplinary team provides care for babies and youngsters who have difficulty with:**

- ❖ motor activities
- ❖ communication
- ❖ learning
- ❖ staying focused
- ❖ forming social relationships

"Our entire team is focused on helping children of all ages with complex developmental and behavioral needs," says Barbara Caspi, Ph.D., program coordinator, psychologist and a New Jersey Certified School Psychologist.

CHATT is also a resource for primary care physicians, high risk follow-up program, case managers, care coordinators, day training centers, child study teams and other community providers requiring assistance in the assessment and management of these children.

### Benefits of CHATT

Vinod Goyal, M.D., and Saidi Clemente, M.D., two experienced developmental pediatricians, provide evaluation and treatment for patients. Dr. Goyal is the Medical Director of CHATT and has been a consultant for developmental and behavioral pediatrics to several area hospitals, Early Intervention Programs and school systems. Dr. Clemente is board-certified in pediatrics and neurodevelopmental disabilities.

The multidisciplinary team also consists of nurses, psychologists, physical and occupational therapists, speech pathologists, social workers and nutritionists. Bilingual staff members can assist Spanish-speaking patients. This team approach also enables CHATT to evaluate the child in an efficient manner in just two or three sessions.

**Children should be evaluated if they are having difficulty with:**

- ❖ Speaking to or understanding others
- ❖ Learning to read, write or remember information
- ❖ Running, walking or getting dressed
- ❖ Family or peer relationships
- ❖ Controlling impulsive or overactive behavior

A comprehensive individualized plan for treatment is created and shared with the parents. Treatment options include referrals to community resources, outpatient programs and school-based programs. Counseling for parents and children is also provided.

Most insurance is accepted

### For More Information

**CHATT is located at 201 Lyons Avenue, Children's Hospital of New Jersey at Newark Beth Israel Medical Center. Please call for your appointment at 973.926.4544.**

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### Specialized Services of the Division of Child Development and Behavior include:

- ❖ Early Intervention Program for infants through 3 year olds who have a high-risk medical condition during infancy, which places them at risk for future growth or developmental problems.
- ❖ The Therapeutic Learning Center provides assessment and treatment for children 4 to 11 years of age with behavioral and emotional difficulties.
- ❖ Follow up with the child's school to secure special services that may be available.
- ❖ Education and support groups for parents.
- ❖ Access to all subspecialties at Children's Hospital of New Jersey including physical, occupational and speech therapy.



**For more information call Child Development and Behavior at 973.926.8468 or visit [www.saintbarnabas.com](http://www.saintbarnabas.com).**

# Preventing Sudden Death in Young Athletes

## Pediatric Cardiac Screening at The Children's Heart Center



Pediatric Cardiologist **Deborah Friedman, M.D.**, Chair of Saint Barnabas Medical Center's Department of Pediatrics, and **Joel Hardin, M.D.**, Director of Cardiology, The Children's Heart Center, with team members.

The sudden cardiac death of a young athlete is an unusual but tragic event that often leads to local and national headlines. It most commonly occurs in male athletes, who have estimated death rates nearly five times greater than the rates of female athletes.

"Ninety percent of sudden cardiac deaths in young athletes occur during or after athletic activities," reports Joel T. Hardin, M.D., FAAP, FACC, Director of Cardiology, The Children's Heart Center at Children's Hospital. "This suggests that intense physical exertion is a precipitating factor."

Preliminary testing to detect these potentially fatal conditions can help prevent cardiac arrest from occurring. The Saint Barnabas Health Care System has established the "Playing with Heart" cardiac screening and education program for young athletes and their parents and coaches.

Playing with Heart offers preliminary medical screenings, based on American Heart Association recommendations. Each screening event, staffed by expert Saint Barnabas cardiac and sports medicine physicians, includes a physical examination, EKG testing and immediate results interpretation to players and their parents or guardians. If initial results identify a need for further testing, players will be referred back to their primary care provider for a referral to an appropriate specialist. At the consent of the player and their parents, the results are faxed to the primary care provider.

The program also provides free information sessions to parents, coaches and youth athletic directors to discuss warning signs, symptoms and ways to help prevent sudden cardiac death in youth sports.

### A Rare but Tragic Event

The most common sports associated with sudden death in competitive athletes in the United States are basketball and soccer. The largest available studies estimate the risk among high school and collegiate athletes to be between one per 100,000 and one per

300,000 each year. An estimated 50 to 100 cases occur in the United States annually.

Dr. Hardin reports that congenital cardiovascular disease, or more specifically, hypertrophic cardiomyopathy (a disease involving thickening of the heart muscle) is the leading cause of nontraumatic sudden athletic death.

### Screening: The Key to Prevention

The best way to avoid the tragedy of fatal athlete events is through pre-athletic participation in cardiovascular screening, says Dr. Hardin. Current recommendations for cardiovascular screening include a careful history and physical examination, as well as the use of electrocardiograms (ECG). ECG can detect 95 percent of patients with hypertrophic cardiomyopathy (HCM).

Such screening has been required of athletes in Italy for the past 25 years, and has been supported by the European Society of Cardiologists. A 17-year study in Venice, Italy found that mandatory screening greatly decreased the rate of sudden death in athletes from HCM.

HCM is the most common cause of sudden cardiac death in young competitive athletes. Unfortunately, most athletes with HCM remain asymptomatic until the time of death and are difficult to identify on the basis of history or physical examination alone. In one study, only 21 percent of athletes who died from this condition had signs or symptoms of cardiovascular disease before their death.

Symptoms of HCM may include chest pain, difficulty breathing, light-headedness, irregular heartbeats, and fatigue out of proportion to exertion. HCM is more often found in athletes with a family history of heart attack or sudden death in males 55 and under and females 65 and under. Athletes with a genetic predisposition to this condition should undergo serial echocardiography every 12 to 18 months until age 18 because the condition may not be apparent until physical maturation is complete.

Also at risk are those with a family history of cardiomyopathy, premature coronary artery disease, Marfan Syndrome, arrhythmia, Long QT Syndrome or Brugada Syndrome.

### For More Information

For more information about Playing with Heart screening programs, or to find an attending cardiologist from The Children's Heart Center, please call 1.888.SBHS.123. or visit [www.sbhcs.com](http://www.sbhcs.com).

## Focus on Staff:

### **Carmen H. Lebron-Ortiz, M.D., pediatrician, Family Health Center, CHNJ**



Dr. Lebron-Ortiz was born and raised in a small, poor town in southeast Puerto Rico. In the pursuit of her childhood dream of becoming a physician, she immigrated to the Bronx, N.Y. in 1986 to continue her college education in pre-medical studies. While attending Lehman College, she worked as a math teacher assistant at a local high school. After obtaining a B.A. in Computer Science and Mathematics, she joined the F.B.I. as a Language Specialist. In 1996 she enrolled at UMDNJ--Robert Wood Johnson Medical School and obtained a medical degree. She did her residency in Pediatrics at Newark Beth Israel Medical Center. Today Dr. Lebron-Ortiz is a proud member of CHNJ as a pediatrician at the Family Health Center. Her extracurricular activities include dancing and providing medical care to poor children in Latin American countries.

## Progress in Childhood Cancer Greatly Improves Survival Rates and Quality of Life Issues

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"Estimates show that by 2010, one of every 640 people who are 21- to 30-years-old will be a childhood cancer survivor," says Dr. Kamalakar. "Treatment should not only control or eradicate the disease, but should, at the same time, allow the child to achieve appropriate levels of physical, social and emotional development."

### **The Journey Toward Longer Life**

One of the most important contributions to developing better treatments for children with cancer was the formation of a group of hospitals that agreed to cooperate in clinical trials that were organized by the National Cancer Institute. These trials led to better treatments for acute leukemia, the most common cancer among children.

National studies showed the benefits of combining surgery, chemotherapy and radiation therapy to treat certain types of cancers of the kidneys and muscles, which occurred mainly in children, leading to improved outcomes.



### **Looking to the Future**

Today, COG reports that new treatments based on immunology, bone marrow and stem cell transplantation and those derived from molecular biology and genetics are now in increasingly wider use.

This year, a landmark piece of legislation called the Conquer Childhood Cancer Act of 2007 was introduced that will provide critical resources for the treatment, prevention and cure of childhood cancer. The Act brings hope to the more than 12,500 children who are diagnosed with cancer each year by authorizing \$150 million over a five-year period to support National Cancer Institute pediatric biomedical research programs, establish a national childhood cancer registry, and enable researchers to study childhood cancers and long-term effects of treatments.

### **Help Close to Home**

The Saint Barnabas Health Care System has three hospitals in New Jersey that are part of the Valerie Fund, one of the largest and most advanced pediatric oncology/hematology networks in the country. Because the centers are outpatient facilities located near their homes, youngsters are able to receive treatment without having to greatly alter their normal routines. Young patients receive the most advanced range of diagnostic and therapeutic treatment services from an expert team of specialists, including pediatric hematologists/oncologists, surgeons, radiologists, nurses, social workers, counselors and child life specialists.

**You can reach an attending pediatric hematologist/  
oncologist 24 hours a day for referrals at  
The Valerie Fund Children's Center at Children's  
Hospital of New Jersey at Newark Beth Israel  
Medical Center, 973.926.7161.**

## Newark Beth Israel Medical Center Named Thomson 100 Top Hospitals: Performance Improvement Leaders

Newark Beth Israel Medical Center, Clara Maass Medical Center, and Saint Barnabas Medical Center, affiliates of the Saint Barnabas Health Care System were among three of the four New Jersey hospitals to receive the prestigious 2006 Thomson 100 Top Hospitals: Performance Improvement Leaders. For the second consecutive year, Newark Beth Israel was recognized on this national list.

“Our goal is always to achieve quality care, patient satisfaction, and to remain on the forefront of cutting-edge health care in New Jersey,” says Ronald J. Del Mauro, President and Chief Executive Officer of the Saint Barnabas Health Care System. “The Thomson Awards for three of our facilities solidify our promise to our patients that we continue as New Jersey’s health care leader.”

Thomson, formerly Solucient, examined the performance of more than 2,800 United States hospitals, rating them on eight factors that reflect clinical outcomes and efficiency, financial strength and market growth. The study analyzed publicly available Medicare cost reports, Medicare Provider Analysis and Review data, and Center for Medicare and Medicaid Services (CMS) outpatient data.

One hundred hospitals were identified for having improved the most from 2001 to 2005. They were grouped into categories of teaching hospitals, including Newark Beth Israel and Saint Barnabas, and community hospitals, including Clara Maass. Newark Beth Israel Medical Center was the only major teaching hospital in N.J. to win the award. For more information about the 2006 Thomson Top 100 Hospitals: Performance Improvement Leaders, visit [www.100tophospitals.com](http://www.100tophospitals.com).

**For more information about these three facilities or any of the services and programs throughout the Saint Barnabas Health Care System, please call 1.888.SBHS.123 or log on to our website, [www.saintbarnabas.com](http://www.saintbarnabas.com).**

## Children’s Hospital of New Jersey Makes Headway In Fight Against Infection



*Jeremias L. Murillo, M.D., Director of Pediatric Infectious Diseases*

Each year more than 2 million people acquire infections while in the hospital and more than 100,000 people are killed by these infections. According to the Centers for Disease Control and Prevention, hospital-acquired infections cause as many deaths annually as car accidents, breast cancer and AIDS combined.

With these statistics in mind, Children’s Hospital of New Jersey at Newark Beth Israel Medical Center has dramatically reduced its hospital-acquired infection rate by instituting several simple procedures. Jeremias L. Murillo, M.D., Director of Pediatric Infectious Diseases, and the recipient of many awards and honors, has instituted a sweeping set of measures that have sharply decreased infection rates.

### Fighting Infection Rates Aggressively

In an effort to reverse the spread of drug-resistant strains, hospitals are aggressively seeking out potentially dangerous infections. Children’s Hospital of New Jersey at Newark Beth Israel Medical Center tests every patient for methicillin-resistant *Staphylococcus aureus* (MRSA), even if they show no sign of the infection — a strategy known as active surveillance. MRSA makes up more than 60 percent of hospital staph infections.

Over a six-month period, testing of all incoming intensive-care patients helped to reduce the rate of newly acquired MRSA infections almost to zero. Also, the new system cut the proportion of intensive-care patients carrying the infection to 10 percent from 33 percent.

“MRSA has spread rapidly in recent years and the disease may be even more common than previously thought,” says Dr. Murillo. “Our new measures have drastically reduced the spread of this serious infection.”

### Preventing Infection in the PICU

For sick children in any Pediatric Intensive Care Unit (PICU), some with compromised immune systems, infection is a severe risk to recovery. According to an article in the medical journal *Pediatric Critical Care*, 16 percent of children in PICUs acquire infections and infections can increase their risk of death by 20 percent.

Children’s Hospital of New Jersey at Newark Beth Israel Medical Center is one of 31 National Association of Children’s Hospitals and Related Institutions (NACHRI) member hospitals participating in a program to eradicate central intravenous catheter associated bloodstream infections, the most problematic infectious threat in PICUs. The project is being coordinated by NACHRI, and six months into the three-year project has already reduced infection rates in the participating PICU’s by 70 percent.

In the NACHRI project, hospitals adhered to rigid guidelines, including standardized care of catheters, sterile precautions and monitoring in order to keep catheters in place and free of infection. The PICU’s have also adopted new measures to prevent urinary tract infections in patients who need bladder catheters.

Children's Hospital of New Jersey at Newark Beth Israel Medical Center is the state's premier hospital caring for children, with specialized services to treat ill and injured children from newborn to adolescent years and highly qualified and experienced medical and surgical specialists and subspecialists.

Adolescent Medicine ♦ 973.926.7559
Adolescent Clinic ♦ 973.926.7300
Allergy and Immunology ♦ 973.926.8004
Anesthesia and Moderate Sedation ♦ 973.926.3351
Cardiology-Invasive and Non-Invasive ♦ 973.926.3500
Cardiothoracic Surgery ♦ 973.926.6938
Center for Auditory Processing and Cognitive Disorders ♦ 973.926.2262
Child Life Services ♦ 973.926.7198
The Children's Heart Center ♦ 973.926.3500
The Children's Hospital Assessment and treatment Team (CHATT) ♦ 973.926.4544
Comprehensive Hemophilia Treatment Center ♦ 973.926.6511
Dental Services ♦ 973.926.6038
Ear, Nose and Throat (ENT) or Otolaryngology ♦ 973.731.5400
Emergency Pediatrics Center ♦ 973.926.PEDS (7337) or 73.926.KIDS (5437)
Endocrinology ♦ 973.926.3405
Gastroenterology and Nutrition ♦ 973.926.7280
General Pediatrics ♦ 973.926.7282
General Surgery ♦ 973.926.3300
Infectious Diseases ♦ 973.926.7329
The Nurturing Touch of Infant Massage ♦ 973.926.7198

Medical Education ♦ 973.926.7040
Neonatal SIDS/Apnea Center ♦ 973.926.7191
Neonatal Intensive Care Unit (NICU) ♦ 973.926.7203
Nephrology ♦ 973.926.5264
Neurology ♦ 973.926.7300
Otolaryngology ♦ 973.731.5400
Ophthalmology ♦ 973.926.3300
Pathology ♦ 973.926.7307 (3888)
Pediatric Intensive Care Unit ♦ 973.926.3886
Psychiatry ♦ 973.926.7444
Pulmonary Medicine ♦ 973.926.4273]
Radiology ♦ 973.926.7467
Rheumatology ♦ 973.322.7600
Rehabilitation Services ♦ 973.926.7245
Same-day Surgery ♦ 973.926.7048
Speech/Language Pathology ♦ 973.926.7815
Urological Surgery ♦ 973.926.3300
Valerie Fund Children's Center for Cancer and Blood Disorders ♦ 973.926.7161

Children's Hospital of New Jersey at Newark Beth Israel Medical Center 201 Lyons Avenue at Osborne Terrace, Newark, NJ 07112 [973.926.7000](tel:973.926.7000) ♦ [www.saintbarnabas.com](http://www.saintbarnabas.com)

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## Reducing Infection During Your Hospital Stay

Anyone who anticipates a stay in any hospital should know about these measures to reduce infection:

- ♦ Hand-washing is always at the forefront of any preventative measures. By focusing on basic hygiene, infection rates can be greatly reduced. Rooms and hallways should be equipped with dispensers of hand sanitizer.
- ♦ Screening patients for disease-causing germs and drug-resistant bacteria helps hospital staff to cut its overall infection rate.
- ♦ Studies show that discarding blood pressure cuffs after use and wiping the surface of the stethoscope with alcohol before each use can reduce infection rates.
- ♦ Education is important and patients can help by observing the hygiene habits of healthcare workers before care is given. Patients should ask that hospital staff clean their hands before treatment, and ask visitors to clean their hands at the start of a visit.

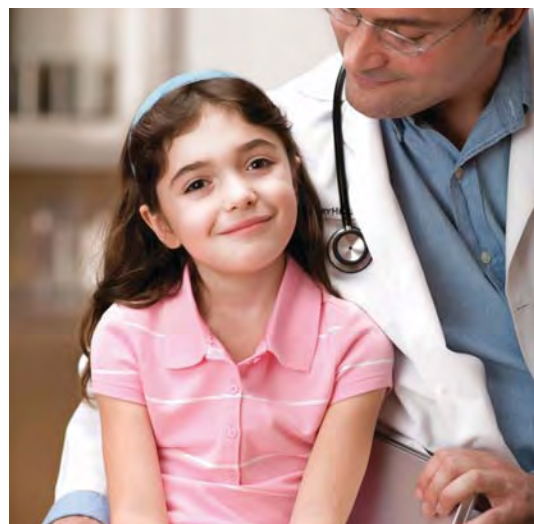
For a referral to a pediatrician or pediatric specialist, please call [1.888.SBHS.123](tel:1.888.SBHS.123).

## The Conscious Sedation Service at Children's Hospital of New Jersey

The Conscious Sedation Service at Children's Hospital of New Jersey, part of the Department of Anesthesiology, marked its tenth year of service in 2007. CHNJ has the only free-standing pediatric anesthesia unit in the region and an experienced team of board-certified anesthesiologists and nurses.

"Our pediatric anesthesiologists examine and treat children in a way that makes them feel relaxed and less apprehensive," says Mark A. Hausdorff, M.D., Chairman of the Department of Pediatric Anesthesia at Children's Hospital of New Jersey (CHNJ) and board certified in pediatrics and anesthesiology. "In addition, our equipment and facilities are specifically designed for children to create a comfortable and non-threatening environment for young patients."

Sedation and analgesia describe a medically controlled state of depressed consciousness that allows protective reflexes to be maintained. The patient retains the ability to independently



maintain his or her airway and to respond purposefully to verbal commands and/or tactile stimulation. Because patients can slip into a deep sleep, proper monitoring of conscious sedation is necessary. The CHNJ team carefully monitors patient heart rate, blood pressure, respiratory and cardiac function, oxygen level and alertness throughout and after the procedure.

### AAP Guidelines for Conscious Sedation

Drugs used to induce conscious sedation should achieve five goals (American Academy of Pediatrics, 1992): (1) to guard the patient's safety and welfare; (2) to minimize physical discomfort or pain; (3) to minimize negative psychologic responses to treatment by providing analgesia, and to maximize the potential for amnesia; (4) to control behavior; and (5) to return the patient to a state in which safe discharge, as determined by recognized criteria, is possible. Administration should also be "atraumatic" by using oral, topical, or existing IV routes.

The use of sedating drugs for procedures has serious associated risks, such as hypoventilation, apnea, airway obstruction, and cardiopulmonary impairment. The AAP has guidelines for the safe administration of conscious sedation. These include provision of emergency equipment, such as a positive-pressure oxygen delivery system, airway management and breathing equipment, and an emergency cart. The patient's level of consciousness and responsiveness, heart rate, blood pressure, respiratory rate, and oxygen saturation (via pulse oximetry) must be monitored during the procedure.

Conscious sedation allows patients to recover quickly and resume normal daily activities in a short period of time. If you have any questions or would like to schedule a procedure with sedation for your patient, please call **973.926.7879**.

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