



# HEALTHY CHILD

from The Children's Hospital of New Jersey  
at Newark Beth Israel Medical Center

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## Understanding Autism Spectrum Disorders

Vinod Goyal M.D., Director of the Pediatric Developmental Center, Children's Hospital of New Jersey at Newark Beth Israel Medical Center



Autism Spectrum Disorders (ASD) are a group of neuro developmental disorders that affect a child's behavior, social development, and communication skills. The symptoms of ASD are widely variable and have an impact on a child's functioning at different levels. Some children have a very mild disorder, while others are severely impaired.

There are several diagnoses which fall under the umbrella of Autism Spectrum Disorder. These include Autistic Disorder, Rett's Syndrome, Childhood Disintegrative Disorder, Asperger's Disorder, and Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS).

Typically, children with ASD display poor eye contact and limited social interaction. They prefer to play alone and follow their own personal interests. They do not respond to their name and appear to be in their own little world. While some children have delayed speech and language skills, others are non-verbal. Many have language that is non-functional and abnormal in quality. Children with ASD frequently engage in repetitive activities, such as spinning of objects or lining up of objects. Many are resistant to change and have problems transitioning from one task to the next. Others develop intense interests in certain areas. Some children are over sensitive to touch and sound, while others may develop self-stimulatory behaviors, such as rocking, head banging, and hand flapping.

### Higher Prevalence of Autism Spectrum Disorder

Currently, in the United States, 1 in 150 children is diagnosed with Autism Spectrum Disorder. However, New Jersey has a higher prevalence rate with an incidence of 1 in 94. At Children's Hospital of New Jersey we are seeing a tremendous increase in the number of new cases. Looking at our statistics from 2000-2006, we have seen a three-fold increase in the number of developmental visits for children with autism spectrum disorder. This increase can partly be explained due to increasing awareness of ASD and changes in diagnostic criteria.

Scientists do not yet know exactly what causes Autism Spectrum Disorder. There is strong evidence that genetic factors do play a role in the etiology of ASD. What is not known is whether environmental factors contribute to the etiology of ASD. Childhood immunizations had been proposed in the etiology of autism in the past, but there is no evidence to support this link.

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

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. "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.

"Estimates show that by 2010, one of every 640 21 to 30 year olds will be a childhood cancer survivor," says Dr. Kamalakar, who reports that the three Valerie Fund sites are members of the COG and participate in ongoing pediatric cancer research. "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."

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## The Journey Toward

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, landmark 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 the Children's Hospital of New Jersey at Newark Beth Israel Medical Center, 973.926.7161.*

*The Children's Oncology Group unites the best of the academic and clinical research worlds to move the most promising treatments from the lab into clinical trials. This association of more than 5,000 dedicated experts in childhood cancer research and treatment are located at more than 235 children's and university hospitals, and cancer centers in the United States.*



# Recognizing the Special Health Needs of Adolescents

Most of the causes of illness and death in the adolescent population are behavior related, and therefore preventable. The state of New Jersey has targeted four areas to improve the health of teens in New Jersey by 2010,

- ❖ preventing pregnancy and sexually transmitted diseases (STDs);
- ❖ promoting nutrition and physical activity;
- ❖ preventing violence and injury;
- ❖ preventing substance abuse

“Adolescents need education about reproductive health care issues,” says Wendy Neal, M.D, MPHTM, Adolescent Medicine Specialist, who provides medical services at The Adolescent Clinic, part of The Pediatric Health Center at Children’s Hospital of New Jersey at Newark Beth Israel Medical Center. “Sexually active adolescents, and those who are thinking about it, need to seek care from a physician in this area to get contraception counseling to prevent STDs and examinations to determine if they have any STDs if they have already had sex. Prevention and early detection of STDs can prevent complications such as pelvic inflammatory disease.”

The rate of obesity in the adolescent population has tripled over the past 5-10 years. Obesity can lead to chronic illness like diabetes, high blood pressure, and sleep apnea. It is important that adolescents have an annual physical at which time their nutritional status can be assessed and if obesity is determined, proper weight loss counseling can be initiated.

The World Health Organization (WHO) reports that many adolescents die prematurely due to causes such as accidents and risky behavior. Accidents, violence, and suicide are among the three most common causes of death in adolescence. Many lifestyle choices that start during these critical years contribute greatly to the overall health of an adult. The WHO estimates that 70% of premature deaths among adults are largely due to behavior initiated during adolescence.

## Major health issues in the adolescent years are related to:

- ❖ Sexual and reproductive health (sexual development and sexuality, sexually transmitted diseases including HIV/AIDS, unwanted and unsafe pregnancies)
- ❖ Substance use (including use of tobacco, alcohol, and illicit drugs)
- ❖ Mental health (including suicide and depression)

## Adolescent Sexual and Reproductive Health

Sexual development is a normal part of adolescence. Fortunately, most adolescents go through these changes without significant problems. Nonetheless, all adolescents need support and care during this transition to adulthood, and some need special help.

“Many adolescents are at risk because they do not have the information, support, and health services they need to go through sexual development during adolescence and postpone sex until they are physically and socially mature and able to make well-informed, responsible decisions,” says Dr. Neal.

### The main issues in adolescent sexual and reproductive health are:

- ❖ Sexual development and sexuality (including puberty)
- ❖ Sexually transmitted diseases/ HIV/AIDS
- ❖ Unwanted and unsafe pregnancies

Most adolescents become sexually active before the age of 20, but generally lack access to family planning services including appropriate contraceptives, prevention and care of sexually transmitted diseases, or pregnancy care. The opening times or location of services may make them inaccessible, or the care is too expensive.

## Adolescents and Substance Abuse

According to the WHO, the use of tobacco, alcohol and other drugs is a major contributing factor to accidents, suicides, violence, unwanted pregnancies and sexually transmitted diseases (including HIV/AIDS) among young people in many countries. Despite the harmful effects of tobacco, many young people start smoking during adolescence largely because they believe that smoking will boost their social image.

“Family influences also play a role,” reports Dr. Neal. “Adolescents whose parents or siblings smoke are more likely to use tobacco. Once adolescents have experimented with smoking, approximately 50% continue to smoke and become addicted.”

Alcoholic drinks help to lower inhibitions and increase the chances of risk-taking behavior. Among adolescents, drinking alcohol increases the likelihood of unsafe sex, which can lead to HIV infection and other STDs, as well as unplanned pregnancies.

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Alcohol use is also associated with increased violence and suicide among adolescents. The younger an adolescent starts drinking, the greater the chances of developing an alcohol problem as an adult.

The adverse consequences of drug use by young people include dependence, overdose, accidents, physical and psychological damage, and premature death. The altered perceptions induced by drug use can lead to fatal accidents and suicide attempts. Drug dependency increases the likelihood that young people will resort to crime to finance their drug habit. The hazards of drug use have also been demonstrated dramatically by the rapid spread of HIV infection.

## Adolescent Mental Health

Most adolescents have periods of low or irritable mood, and many may briefly engage in behaviors that are not characteristic of their normal self. Beyond the normal mood swings, impaired mental health is a precursor of many health-risky behaviors, such as alcohol and substance abuse; unwanted or unprotected sex; reckless driving or excessive risk-taking. Other behaviors are also linked to adolescent mental health: aggressiveness and disregard for laws; school avoidance and school failure.

“Adolescence is also a peak age of onset for serious mental illness,” says Dr. Neal. “Mood disorders such as depression and bipolar disorder, and psychotic disorders such as schizophrenia, are two types of mental illness for which early recognition and intervention is critical to a successful and long-lasting recovery.”

## Expanded Adolescent Services offered at The Pediatric Health Center at Children's Hospital of New Jersey

The Pediatric Health Center at Children's Hospital of New Jersey at Newark Beth Israel Medical Center has a full time Adolescent Clinic for teens ages 11-21 years.

- ❖ The Adolescent Clinic provides primary care and consultative services for general adolescent health issues.
- ❖ Comprehensive physicals are offered for school, camp and sports.
- ❖ Confidential reproductive health care is available for gynecological exams, treatment of menstrual disorders, contraception management, and STI diagnosis and treatment.
- ❖ Social work and nutrition services are available on site.
- ❖ Most insurance plans are accepted.

*Services are provided by board certified Adolescent Medicine Specialists Wendy Neal, MD, MPHTM and Elizabeth Rose, MD. Call for your appointment at 973.926.7300 or 973.926.7282.*

*The Pediatric Health Center at Children's Hospital of New Jersey, 166 Lyons Avenue, 1st Floor Newark, NJ 07112, 973.926.7300 or 973.926.7282 Open Monday-Friday, 8:30 am-4 pm*

Pre-existing mental health issues may worsen as the adolescent undergoes this demanding phase of emotional and physical maturation.

## About Children's Hospital of New Jersey

Children's Hospital of New Jersey is the state's premier hospital caring for children, with specialized services to treat ill and injured children from newborn to adolescent years as well as preventive programs that promote wellness in the community. Children's Hospital of New Jersey is an affiliate of the Saint Barnabas Health Care System, the largest integrated health care delivery system in the state.

*For a referral to a pediatrician or pediatric specialist, please call 1.888.SBHS.123.*

## Vaccine Update

There are many newer recommendations for immunizations in the adolescent patient. Adolescent patients should receive a booster shot of Tetanus vaccine that contains pertussis because the vaccines they received as younger children are no longer protective and there have been many cases of pertussis disease reported in the U.S. Also, teens now need a second chicken pox vaccine if they have not had the chicken pox disease as well as the meningitis vaccine to prevent meningitis, a serious infection of the fluid around the brain and spine. Finally, there is a new vaccine to prevent cervical cancer in women. The HPV vaccine is recommended for young women, aged 9-26 years.

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Recent guidelines from the American Academy of Pediatrics (AAP) highlight the importance of early screening and diagnosis of ASD to improve outcomes through early intervention and treatment modalities. To increase awareness, the Centers for Disease Control (CDC), in collaboration with the AAP and other organizations, developed the “Autism A.L.A.R.M.” to guide practitioners. A.L.A.R.M. outlines the important steps: A – autism is prevalent; L – listen to parents; A – act early; R – refer; and M – monitor.

## Signs of Autism Spectrum Disorders

Red flags to watch for include: no babbling by 12 months of age; no pointing or gesturing by 12 months (waves bye-bye); no single words by 16 months; no two-word utterances (not echolalia) by 24 months; and loss of any language or social skills at any age.

Important questions to ask at the 18 month well-baby visit include:

### “Does your child...”

1. Ever engage in pretend play? (pretend to talk on the telephone or play with dolls)
2. Ever use his/her index finger to point to indicate interest in something?
3. Socialize or take interest in other children?
4. Enjoy playing peek-a-boo and hide-and-seek?
5. Ever bring objects over to you to show you something?
6. Show empathy?

In a busy pediatrician’s office, questionnaires such as the Checklist for Autism in Toddlers (CHAT) and the Modified Checklist for Autism in Toddlers (M-CHAT) are extremely helpful. M-CHAT is available through the First Signs website ([www.firstsigns.org](http://www.firstsigns.org)) and can be downloaded.

## What to do if your child is diagnosed with ASD



When ASD is suspected, the child should be referred for a neuro developmental evaluation and early intervention services. It is important not to delay making these referrals. While ASD is a life-long condition with no known cure, outcomes significantly improve when children are identified early and intervention is begun.

At Children’s Hospital of New Jersey, our staff includes two board-certified neuro developmental pediatricians, a pediatric nurse practitioner, a registered nurse, and a full-time child evaluation center (CHATT – Children’s Hospital Assessment and Treatment Team) which includes a child psychologist, social worker, occupational therapist, and speech and language therapist. Our team works together to diagnose and help families obtain appropriate medical, educational, and multidisciplinary services. This comprehensive multidisciplinary approach is necessary for long-term management of ASD.

**Again, acting early can make a real difference.**

*The Pediatric Developmental Center at Children’s Hospital of New Jersey is located at Newark Beth Israel Medical Center at 201 Lyons Avenue in Newark. Patients can also be seen at Saint Barnabas Ambulatory Care Center at 200 South Orange Avenue in Livingston. To schedule appointments at Newark Beth Israel Medical Center, please call 973.926.4446 and to schedule appointments at The Ambulatory Care Center, please call 973.322.7600.*

## Director of Pediatric Pulmonology at Children's Hospital of New Jersey Named Medical Director of ALANJ Camp Superkids



*Dr. Mikkilineni and camper from ALANJ Camp Superkids*

Sushmita Mikkilineni, M.D., FAAP, Director of Pediatric Pulmonology at Children's Hospital of New Jersey at Newark Beth Israel Medical Center, has been named the Medical Director of The American Lung Association of New Jersey's (ALANJ) Camp Superkids. Camp Superkids provides a one-week camping experience for New Jersey children with asthma, ages eight to twelve years of age.

"By combining a regular camping experience with asthma education classes, campers learn to see themselves as regular kids who just happen to have asthma," says Dr. Mikkilineni.

Camp Superkids, which ran from for June 24th until June 30th, 2007 at Fairview Lake YMCA Camp in Newton, N.J., is a stepping-stone to breathing easier by helping children to develop self-confidence, self-esteem and a sense of responsibility in managing and controlling their asthma.

The camp is staffed with medical professionals, including physicians, nurses and respiratory therapists, who provide comprehensive care 24-hours a day. There are regularly scheduled medication rounds and special attention is given to each child's emotional and physical needs.

Dr. Mikkilineni, an attending Pulmonologist/Intensivist, received her medical degree from the University of Delhi in India. She completed her residency training at Robert Wood Johnson University Hospital, the College of Physicians and Surgeons at Columbia University and Lady Hardinge Medical College Hospital in India.

She is a Fellow of the American Academy of Pediatrics and an active participant in the American Thoracic Society, the New Jersey Thoracic Society, the American Lung Association, the New Jersey Pediatric Asthma Coalition and the Asthma Committee of the Maternal and Child Health Consortium of Central Jersey. She has co-authored articles that have appeared in the Journal of Pediatric Hematology and Oncology and Pulmonology journal as well as written chapters for two books, Dysphagia and the Child with Developmental Disabilities and Rehabilitation of the Patient with Respiratory Disease.

*For more information about Camp Superkids, call the Camp Director at 908.687.9340 or call 1.800.LUNG.USA (586.4872) to request an application packet.*

## Children's Heart Center Hosts Party for Children and Families

More than 100 children who have undergone heart surgery or catheterization and their families celebrated life at a party in their honor on May 11, 2007 hosted by the Children's Heart Center at Children's Hospital of New Jersey at Newark Beth Israel Medical Center.

"These youngsters, their siblings and parents have shown a lot of courage," explains Alicia Erickson Zink, MSW, LSW, Pediatric Social Worker, Children's Heart Center. "A diagnosis of congenital heart disease can be very isolating for a family. The reunion brings together a whole community of kids and families who can support each other."

Children born with congenital heart disease often face many procedures and surgeries throughout their childhood and beyond. One way Children's Heart Center helps a child through the process is the new Bravery Beads Program. A colorful bead is added to a necklace every time the child goes through a procedure or test. The necklaces are a tangible

reminder of their accomplishments and help them get through difficult treatments.

The reunion party also launched the Children's Heart Center's new Family Support Network that will match newly diagnosed families with veteran families who have been through similar circumstances.

*For more information call the Heart Center at 973.926.3500.*



*Perry Family at the Heart Center*

 **Children's Hospital  
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at Newark Beth Israel Medical Center  
Saint Barnabas Health Care System

201 Lyons Avenue at Osborne Terrace  
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