



# City Health Information

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The New York City Department of Health and Mental Hygiene

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## MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES Including a Section on Down Syndrome

There are more than 100,000 children, adolescents, and adults with mental retardation and other developmental disabilities (MR/DD) in New York City; these individuals need comprehensive and appropriate health care. Over the past 30 years, there has been a movement away from institutional placement, with the vast majority of individuals with MR/DD now living in the community. Most of their medical needs are similar to those of the general population. Access to care, however, can be difficult.

Varying levels of care and support are needed throughout the lifespan of individuals with MR/DD.<sup>1</sup> Medical problems tend to be most prominent during infancy, as is the need for developmental services. Social services and support for family members are essential at the time of diagnosis and during significant transition periods.

Because of improvements in health care and other types of interventions and support, persons with MR/DD can achieve relatively high levels of independence. An essential component of living a healthy life is quality medical care. This issue of *City Health Information* provides information to assist health care providers in caring for individuals with MR/DD.

### DEFINITION OF DEVELOPMENTAL DISABILITY

The Federal Developmental Disabilities Act defines a developmental disability as a severe, chronic disability that:<sup>2</sup>

- is attributable to a mental or physical impairment or a combination of mental and physical impairments;
- is manifested before the person attains age 22;
- is likely to continue indefinitely;
- results in substantial functional limitations in 3 or more of the following areas of major life activity:
  - self-care
  - receptive and expressive language
  - learning
  - mobility
  - self-direction
  - capacity for independent living
  - economic self-sufficiency;

- reflects the individual's need for a combination and sequence of special interdisciplinary or generic services, individualized support, and other forms of assistance that are lifelong or of extended duration and are individually planned and coordinated.

### DIAGNOSTIC CRITERIA FOR MENTAL RETARDATION<sup>3</sup>

- Significantly sub-average intellectual functioning: an IQ of approximately 70 or below on an individually administered IQ test (for infants, a clinical judgment of significantly sub-average intellectual functioning);
- Concurrent deficits or impairments in present adaptive functioning (i.e., the person's effectiveness in meeting the standards expected for his or her age by his or her cultural group) in at least 2 of the following areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety;
- Onset before age 18 years.

It is important to emphasize that definitive diagnosis of mental retardation requires properly administered and interpreted IQ and adaptive functioning testing by qualified professionals.

### MR/DD HEALTH ISSUES THROUGHOUT THE LIFESPAN

#### Preconception Care

Health care for all children begins prior to conception. Mothers who receive appropriate prenatal care, follow a nutritious diet (including adequate folic acid intake both before and after conception), and avoid exposure to toxic substances (including alcohol, nicotine, and illegal substances) are much more likely to have a normal full-term infant. Even with optimal prenatal care, however, adverse outcomes do occur. Despite advances in the care of infants with low birth weight, preterm birth is the greatest risk factor for future developmental problems. The lower the birth weight, the greater the risk of MR/DD. Children born weighing <1000 grams have a greater than 40% likelihood of being diagnosed with a neurodevelopmental abnormality.<sup>4</sup>

Due to technological advances, many types of genetic abnormalities can now be detected antenatally. High-resolution ultrasound is generally used to identify major physical abnormalities in the fetus.<sup>5,6</sup> At 16–18 weeks gestation, a low serum alpha-fetoprotein level indicates the possibility of Down syndrome;<sup>7</sup> a high serum alpha-fetoprotein level is associated with neural tube defects.<sup>8</sup>

Additional screening tests can improve the detection rate for Down syndrome. The triple-marker test analyzes serum alpha-fetoprotein, human chorionic gonadotropin, and unconjugated estrogen levels, identifying close to 90% of Down syndrome cases.<sup>9</sup> Antenatal chromosome analysis through amniocentesis or chorionic villus sampling is used to confirm the presence of Down syndrome or another genetic defect. Genetic counseling should always be offered to the parents of a child with a genetic disorder.

When informing parents of an abnormality in their child, it is critical that physicians approach the parents with special care and sensitivity. Every effort should be made to inform both parents at the same time and to be as honest, unbiased, and knowledgeable as possible regarding the etiology and short- and long-range prognoses.<sup>10</sup> It is helpful to provide the parents with a list of resources available in the community.

## Newborns

With the exception of infants who were preterm, who required resuscitation due to a complicated delivery, or who have major congenital defects, most newborns later diagnosed with MR/DD have an unremarkable neonatal course. Infants with hyperbilirubinemia may require hydration, phototherapy, and if their condition is particularly severe, an exchange transfusion in order to avoid brain damage due to kernicterus.

## Toddlers and Preschool Children

Children with MR/DD who have brain malformations or evidence of central nervous system dysfunction are at increased risk for developing a seizure disorder. Additionally, a disability that significantly impairs the functioning of the bulbar region (brainstem) may impair the ability to chew or swallow. This can lead to nutrition and growth problems, an increased risk of pneumonia, and, in the most severe cases, a need for ostomy feedings and a concomitant fundoplication procedure to minimize gastroesophageal reflux.

The families of eligible children with MR/DD should be offered early intervention and preschool services through local public or private service providers. This may include a wide range of services (see *City Health Information*, Vol. 20, No. 2, June 2001; [www.nyc.gov/html/doh/pdf/chi/chi20-3.pdf](http://www.nyc.gov/html/doh/pdf/chi/chi20-3.pdf)) and

therapies (e.g., occupational, physical, speech, vision), as well as educational interventions. Ongoing medical care is not paid for under statutes providing early intervention services, but support may be provided by medical insurance.

Children and adults with MR/DD should receive all recommended vaccines in accordance with current Advisory Committee on Immunization Practices (ACIP) guidelines.<sup>11</sup> Children with MR/DD who have underlying medical conditions may require an annual influenza vaccination.<sup>12</sup>

## School-Age Children

The health care needs for school-age children with MR/DD are similar to those of preschoolers with MR/DD. Children with chronic conditions (e.g., cardiac, respiratory, or motor disorders) will continue to require ongoing medical care. In certain cases, if the condition is severe, the problem will worsen as the child ages. Children with seizure disorders, for example, require ongoing management, an increase in medication dosage with growth, and changes in medication if the seizures are not well controlled. Children with neuromuscular disorders, such as cerebral palsy or spina bifida, require physical and occupational therapy. They may also need orthotic and other devices, such as braces, splints, crutches, or wheelchairs. In addition, surgical procedures may be necessary to release contractures, treat dislocated hip joints, or correct orthopedic deformities.

In the desire to help their children, family members of a child with MR/DD may seek out unorthodox or unproven interventions. The use of such alternative medical therapies is common<sup>13</sup> and needs to be recognized and dealt with in an understanding manner. Practitioners can guide family members by helping them to understand which therapies have been scientifically proven and what makes a research study credible. If family members plan to pursue interventions with which their physician disagrees, the physician should assure them that they are welcome to return for advice and care.

## Adolescents

Adolescents with MR/DD go through the same physical process of growth and maturation as their peers. However, because adolescents with MR/DD have a lower cognitive level, their understanding of the maturational process and their ability to adapt to these changes may be limited. Often during this period of physical growth and sexual maturation, parents will bring their child to a health care provider. These parents need guidance on how to educate their adolescent about sexual development and feelings, sexual intercourse and masturbation, menstruation, contraception, pregnancy, and sexually transmitted diseases (STDs).<sup>14</sup> While every parent of an adolescent faces these communication issues, the difference for the parent of an adolescent

with MR/DD lies in how to communicate this information to a young adult who may be mildly to severely impaired intellectually.

As in the general adolescent population, physical maturation in adolescents with MR/DD occurs at different rates. While the chronological sequence of development is usually the same, the stages for adolescents with MR/DD are likely to be delayed, possibly extending into adulthood.

Generally, adolescence is a time of good health. Mental health, sleep disorders, and seizure and musculoskeletal disorders warrant special attention, but the greatest health risks are clearly behavioral, not biomedical. Like other adolescents, those with MR/DD may engage in deleterious behavior, such as high-risk sexual activity or use of tobacco, alcohol, or illicit drugs. It is important for health care professionals to screen for these problems at every patient encounter. Preventive care is particularly crucial in this population, as cessation interventions may be less effective. That said, individual and parental counseling can be beneficial in managing behavioral problems that result from poor judgment, impulsivity, and limited communication skills.

Providers should also address the issue of contraception with the patient and/or the legal caregiver of the patient. Various methods of contraception, such as patch or vaginal ring formulations, parenteral administration, and intrauterine devices (IUDs), may be particularly indicated in adolescents with MR/DD (for more information on contraception, visit [www.nyc.gov/html/doh/pdf/chi/chi21-2.pdf](http://www.nyc.gov/html/doh/pdf/chi/chi21-2.pdf)).

## Adults

Persons with MR/DD are surviving longer due to better health care in childhood and adolescence. With the number of adults with MR/DD increasing, the clinical management of this population is a new area for many practitioners who may have had little training or experience with such individuals.<sup>15</sup> Most adults with mild to moderate MR/DD do not have coexisting chronic medical conditions related to their disability; thus their medical needs are similar to those of the general population. Adults with MR/DD should follow the same recommendations as the general public regarding immunizations and screenings for the following: vision and hearing loss, hypertension, hyperlipidemia, diabetes, and cancer. Attention should be given to age-related chronic conditions such as cataracts and incontinence.

Adults with cognitive limitations are often at increased risk for medical conditions related to poor nutrition and eating habits, as well as lack of exercise. They may be more vulnerable to other high-risk behaviors as well, especially tobacco use and abuse of alcohol and other substances. Each routine encounter should include interventions if needed for smoking, use of alcohol and other drugs, and high-risk sexual activity.

## GENERAL PRINCIPLES

Several key principles should guide the approach to health care for persons with MR/DD.

- No person with MR/DD, irrespective of age, degree of disability, or method of payment, should be denied access to health care.
- Health care should be offered within the general health care system, with access to specialty services as needed.
- Primary care providers and subspecialists should receive appropriate training to understand their patients' special needs, as well as their patients' rights to access care or services; the unique communication problems that may arise; and the particular medical conditions characteristic of different disabilities.
- Diagnostic and treatment services for complex conditions often require services from a multidisciplinary team of health professionals.

## Health Issues for Women with MR/DD

Gynecologic care is often inadequate for women with MR/DD, many of whom have difficulty obtaining comprehensive and dignified examinations. Special strategies using modified positioning can facilitate physical examinations.<sup>16,17</sup> Physicians need to ensure that women with MR/DD undergo routine screening exams, including mammograms and Pap smears, as surveys indicate that this is often neglected.<sup>18</sup>

Women with MR/DD may be at risk of developing sequelae from misdiagnosed or underdiagnosed conditions, such as gynecologic infections (e.g., STDs) or abuse. Women who use wheelchairs or whose activity is otherwise limited should be assessed for evidence of skin breakdown and urinary tract and vaginal infections. STDs, perineal hematomas and bruising, and vaginal abrasions are red flags for sexual abuse. So, too, are scratches, cigarette burns, and bruises located under the upper arms or on the trunk.

## Mental Health Issues

Most individuals with MR/DD who have emotional or behavioral problems are managed on an outpatient basis. Counseling, medication management, and the use of behavior modification techniques can all be effective. Psychiatric hospitalization is sometimes necessary, however. Indications for hospitalization include: 1) suicidal ideation, gesture, or attempt; 2) other self-injurious behavior; 3) dangerous behavior towards

others; 4) acute psychosis, including agitation, hallucinations, or delusions; 5) severe depression; 6) destructive behavior; and 7) behavior that is unmanageable in a community setting. When a person with limited cognitive functioning is treated in an emergency room, physicians may have difficulty distinguishing psychiatric symptomatology from an inability to communicate. In such situations, the presence of a knowledgeable caretaker is helpful.

Finding an appropriate hospital setting for a person with MR/DD who is psychiatrically ill can be challenging. If hospitalization is required, physicians should encourage the caregiver to be persistent in advocating for inpatient care until an appropriate setting is found.

### Oral Health Care

Dental care has been identified as the most prevalent unmet health problem for children with special needs.<sup>19</sup> Oral health remains a major concern in adulthood, as individuals with MR/DD are at higher risk of gingivitis, periodontal disease, and malocclusion, compared to the general population.<sup>20,21</sup> Oral hygiene and dental care are therefore important components of comprehensive health care for children and adults with MR/DD.

Some genetic and congenital disorders have a direct impact on oral health. Virtually all individuals with Down syndrome, for example, have a prognathic malocclusion due to a small maxilla—a characteristic facial feature of the syndrome. With the general increased risk of infections in adults with Down syndrome, periodontal disease is also more frequently found. Other common oral findings in this population include macroglossia, congenitally missing teeth, aberrant tooth morphology, and impactions. Individuals with neuromuscular disorders frequently present with malocclusions, especially anterior open bites. This may be due to hypotonia, forward tongue posturing, and chronic mouth breathing.

Many oral problems common in persons with MR/DD are not an inherent feature of any syndrome or disease but rather are secondary findings. For instance, a seizure disorder or poor muscular coordination may result in increased trauma to the dentition. As another example, individuals may be at greater risk of gingival and periodontal conditions because they lack the physical dexterity to perform adequate oral hygiene.

Medication regimens and persistent problematic oral habits can also be risk factors for oral disease. Gingival hyperplasia is a common side effect of the antiseizure medication phenytoin. Virtually all oral liquid medications have a very high sugar content,<sup>22</sup> increasing the risk of dental caries for any patient who requires medication for chronic conditions but cannot swallow pills. Additionally, certain psychotropic medications reduce

salivary flow, which increases oral acidity, leading to increased dental decay.

Bruxism (tooth-grinding) is fairly common in people with neuromuscular disorders and/or mental retardation. Other more severe self-injurious oral behaviors, such as biting of the tongue, lips, or other parts of the body, may also be seen in individuals with MR/DD.

Lastly, many school programs, day programs, and group residences use food as a reward for desirable behavior. This can lead to problems when the food incentives are highly cariogenic and used frequently.

### Medical-Legal Considerations and MR/DD

At age 18, all residents of the US, including those with MR/DD, are legally free of parental control. An adult with MR/DD is presumed by law to be mentally capable of making decisions regarding his or her own health care. If a person, by nature of his or her disability, is not able to make such decisions, then a legal guardian can be appointed. A guardianship petition can be made to the Surrogate Court, without the assistance of an attorney. Once legal guardianship is established, parents can continue their right to make medical decisions for their adult child with MR/DD. Even though most doctors and facilities would not question the decision of an involved parent, it is generally recommended that guardianship be clearly established so that health care providers are fully aware of who is legally able to give consent.<sup>23</sup>

If an individual with MR/DD is believed to be able to make his or her own medical decisions, it is recommended that he or she complete a health care proxy to designate another person or persons to act as his or her health care agent. A health care agent has the authority to make medical decisions for an individual if, at any time, the individual is determined to be incapable of making them.<sup>24</sup> It may be prudent to refer the individual with MR/DD to a psychologist to ensure capacity to sign a consent. This can be done for any medical or surgical consent, or when a health care agent is appointed.

Information and assistance on guardianship, health care proxies, and other advance directives can be obtained from the New York State Commission on Quality of Care (Resources).



Maintaining the health of individuals with MR/DD is essential to assuring both a better quality of life and the individual's ability to benefit from educational and other services. It is important for all health care providers to understand the special needs of those with disabilities and to know that no one with MR/DD should be denied needed health care.

## DOWN SYNDROME HEALTH ISSUES THROUGHOUT THE LIFESPAN

Down syndrome is the most common genetic cause of mild to moderate mental retardation. It occurs in approximately 1 in 800 live births.<sup>25</sup> Associated medical problems, discussed below, bring individuals with Down syndrome into frequent contact with health care providers.

### Newborns with Down Syndrome

Nearly 50% of newborns with Down syndrome have congenital heart disease. A variety of cardiac abnormalities occurs, the most common of which are due to defects in the endocardial cushion (primarily atrial and ventricular septal defects). Most of these defects do not require surgical intervention, as they may close spontaneously. Surgery may be required, however, if the defect is large and/or there are additional cardiac anomalies.

Approximately 12% of newborns with Down syndrome have congenital gastrointestinal abnormalities; one-third of this group presents with obstruction.

### Toddlers and Preschool Children with Down Syndrome

Children with Down syndrome often have additional health-related difficulties.<sup>26</sup> These can include malformations or other chronic problems (e.g., frequent infections of the respiratory tract, conjunctiva, or middle ear). A significant proportion (15%) of children with Down syndrome have congenital hypothyroidism. Ophthalmological disorders also affect many in this population (38% of children < 12 months of age and 80% of those age 5–12 years).<sup>27</sup> Hypotonia and delays in achieving motor milestones occur in the majority, as do delays in most areas of development, especially language. Seizure disorders affect a significant number of children with Down syndrome, as do autistic spectrum disorders.<sup>27</sup> Malabsorption syndromes and celiac disease are also more common than in the general population.<sup>26,27</sup>

### School-Age Children with Down Syndrome

A particular concern for school-age children with Down syndrome is that approximately 15% have ligamentous laxity, which can cause atlantoaxial instability. The majority of patients are asymptomatic. Atlantoaxial subluxation can cause severe spinal injury, and some experts recommend routine radiographs of the neck. Physicians should respond immediately when any symptoms of nerve or spinal cord compression are evident, such as neck pain, increased reflexes, or a change in gait or bowel or bladder function.<sup>28</sup> Spinal compression will necessitate a spinal fusion. Because of the potential for serious spinal injury, individuals with Down syndrome participating in sports activities need to be closely monitored.<sup>29</sup>

### Adults with Down Syndrome

Today, persons with Down syndrome live well into adulthood. When compared to the general population, however, the mean life span is still more than 10 years shorter. This is due to a variety of factors, the major one being the presence of congenital heart disease. Persons with Down syndrome also have significant immunologic deficiencies. When compared to the general population, they have a much higher mortality rate from infectious disease and a particularly high incidence of pneumonia. They also have a greater risk of developing acute lymphoblastic leukemia and acute myeloid leukemia; the 2 diseases develop with equal frequency (1 in 300).<sup>27</sup>

Adults with Down syndrome are at greater risk for eye problems, including significant refractive errors, strabismus, nystagmus, infections, and cataracts, making routine eye exams particularly advisable. While congenital hearing loss occurs in children with Down syndrome, acquired loss, primarily due to recurrent otitis media, is also common in adults. Behavior changes may be the initial sign of an acquired hearing loss.

As in children with Down syndrome, the incidence of thyroid disease is high among adults of this population. The signs of hypothyroidism may be difficult to detect. Annual testing of thyroid-stimulating hormone (TSH) may be indicated.

Adults with Down syndrome may have undiagnosed cardiac disorders or congenital heart defects that were repaired in childhood. Ongoing monitoring by cardiac exam, electrocardiogram, echocardiogram, and cardiology consultations are needed, as indicated. Antibiotic prophylaxis for certain procedures may be required.

Neurological screening of adults with Down syndrome should be performed as part of an annual assessment. As during childhood, atlantoaxial instability remains a concern.

Generally, age-related disorders—such as dementia—occur at an earlier age in adults with Down syndrome. In a statewide survey of adults in New York with intellectual disabilities (excluding Down syndrome), dementia was found in 3% of adults over age 40, 6% of adults over 60, and 12% of adults over 80. These percentages are similar to those found in the general population. However, in adults with Down syndrome, dementia was found in 22% of those over age 40 and 56% of adults over 60.<sup>30</sup> This translates into an average age of dementia onset that is 10 years earlier in adults with Down syndrome. In this group, approximately 75% have Alzheimer-type dementia, while 19% have dementia that is either nonspecific or unknown in origin.

## RESOURCES

**Aging with Developmental Disabilities**  
Rehabilitation Research and Training Center  
University of Illinois  
[www.uic.edu/orgs/rrtcamr](http://www.uic.edu/orgs/rrtcamr)

**AAMR**  
The American Association on  
Mental Retardation  
[www.AAMR.org](http://www.AAMR.org)

**Health Care Guidelines for Individuals with  
Down Syndrome**  
(Down Syndrome Preventive Medical  
Check List)  
[www.denison.edu/dsq/health99](http://www.denison.edu/dsq/health99)

**National Center on Birth Defects and  
Developmental Disabilities**  
[www.cdc.gov/ncbddd](http://www.cdc.gov/ncbddd)

**National Down Syndrome Congress**  
Healthwatch Chart  
[www.ndscenter.org](http://www.ndscenter.org)

**New York State Commission on Quality of Care**  
Surrogate Decision Making Committee  
[www.cqc.state.ny.us](http://www.cqc.state.ny.us)

**NOAH**  
New York Online Access to Health  
Patient Information  
[www.noah-health.org](http://www.noah-health.org)

**Sex Talk.Org Resources**  
Planned Parenthood of Tompkins County  
Ithaca, New York  
[www.sextalk.org](http://www.sextalk.org)

### **New York City Specialty Clinics And Medical Services**

#### **Citywide or Multi-borough**

**Association for the Help of Retarded Children  
NYC Chapter**  
200 Park Avenue South  
NY, NY 10003  
(212) 780-2500

**Epilepsy Institute**  
257 Park Avenue South  
NY, NY 10010  
(212) 677-8550

**Institute for Basic Research**  
**George A. Jarvis Clinic**  
1050 Forest Hill Road  
Staten Island, NY 10314  
(718) 494-5126

**Kennedy Child Study Center**  
151 East 67<sup>th</sup> Street  
NY, NY 10021  
(212) 988-9500

**Lifespire, Inc.**  
345 Hudson Street  
NY, NY 10014  
(212) 741-0100

**United Cerebral Palsy of New York City**  
122 East 23<sup>rd</sup> Street  
NY, NY 10010  
(212) 677-7400 Ext. 200

**United Cerebral Palsy Associations of  
New York State**  
330 West 34<sup>th</sup> Street  
NY, NY 10001  
(212) 947-5770

**YAI National Institute for People with Disabilities**  
460 West 34<sup>th</sup> Street  
NY, NY 10001  
(212) 273-6515

#### **Bronx**

**Albert Einstein College of Medicine,  
Yeshiva University**  
**Rose F. Kennedy Center**  
1410 Pelham Parkway South  
Bronx, NY 10461  
(718) 430-8500

**Montefiore Medical Center**  
**Narcolepsy Institute**  
111 East 210<sup>th</sup> Street  
Bronx, NY 10467-2490  
(718) 920-6799

**Morrisania Diagnostic and Treatment Center**  
1225 Gerard Avenue  
Bronx, NY 10452  
(718) 960-2899

**Urban Health Plan**  
1065 Southern Boulevard  
Bronx, NY 10459  
(718) 589-2440

#### **Brooklyn**

**Brookdale University Hospital Medical Center**  
Linden Boulevard at Brookdale Plaza  
Brooklyn, NY 11212  
(718) 240-5000

**Block Institute**  
376 Bay 44<sup>th</sup> Street  
Brooklyn, NY 11214  
(718) 946-9700

**Builders for the Family and Youth**  
**Francis DeFalco Dental Clinic**  
11 Catherine Street  
Brooklyn, NY 11211  
(718) 384-0303

**Coney Island Hospital**  
**Dr. Elsa DeGuia Child Development Center**  
2601 Ocean Parkway  
Brooklyn, NY 11235  
(718) 616-4004

**Guild for Exceptional Children**  
260 68<sup>th</sup> Street  
Brooklyn, NY 11220  
(718) 833-6633

**Interfaith Medical Center**  
1545 Atlantic Avenue  
Brooklyn, NY 11213  
(718) 613-4000

**Kings County Hospital Developmental  
Evaluation Center**  
451 Clarkson Avenue, N Building  
Brooklyn, NY 11223  
(718) 270-2918

**Long Island College Hospital**  
**Stanley S. Lamm Institute**  
110 Amity Street  
Brooklyn, NY 11201  
(718) 780-4655

**Maimonides Medical Center**  
**Developmental Disabilities Center**  
745 64<sup>th</sup> Street  
Brooklyn, NY 11220  
(718) 283-1900

**St. Vincent Catholic Medical  
Centers of New York**  
**Sr. Thea Bowman Medical Health Center**  
1205 Sutter Avenue  
Brooklyn, NY 11208  
(718) 647-2600 Ext. 127

#### **Manhattan**

**Mount Sinai Hospital**  
**Neurofibromatosis Clinic**  
1468 Madison Avenue  
NY, NY 10029  
(212) 824-7626

**Renaissance Health Care Network**  
115 West 116<sup>th</sup> Street  
NY, NY 10026  
(212) 961-5747

**St. Luke's/Roosevelt Hospital Center**  
419 West 114<sup>th</sup> Street  
NY, NY 10025  
(212) 523-4000

**Terence Cardinal Cooke Health Care Center**  
1249 Fifth Avenue  
NY, NY 10029  
(212) 360-1000

**Continuing Medical Education**

**Mental Retardation and Developmental Disabilities**

SPONSORED BY THE NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE

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**Objectives:**

The educational objectives of this activity are to:

1. Enable health care providers to understand the disparities in health care for individuals with MR/DD;
2. Enable health care providers to integrate health promotion activities to accommodate people with MR/DD;
3. Increase the physician's knowledge and understanding of health and MR/DD, ensuring knowledge is made practical;
4. Encourage physicians to treat people with MR/DD according to their age and health needs—not just for their disability;
5. Increase sources of health care services for adults, adolescents, and children with MR/DD.

**Accreditation:**

The CME activity is open to physicians (MDs, DOs) and physician assistants. The New York City Department of Health and Mental Hygiene is accredited by the Medical Society of the State of New York to sponsor continuing medical education for physicians. The New York City Department of Health and Mental Hygiene designates this continuing medical education activity for 1.5 hours in Category One credit toward the AMA/PRA (Physician's Recognition Award). Each physician should claim only those hours of credit that he/she actually spent on the educational activity.

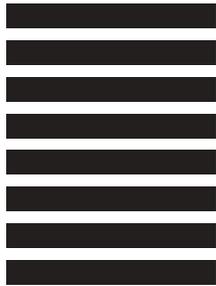


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**Queens**

**Elmhurst Hospital Center**

79-01 Broadway  
Elmhurst, NY 11373  
(718) 334-5111

**Hillside Hospital-MR/DD Services  
In-Patient Psychiatry**

75-59 263<sup>rd</sup> Street  
Glen Oaks, NY 11004  
(718) 470-8095

**New York Hospital Queens Center for  
Developmental Disabilities**

59-16 174<sup>th</sup> Street  
Fresh Meadows, NY 11365  
(718) 670-2731

**Professional Service Centers  
for the Handicapped**

22-44 119<sup>th</sup> Street  
College Point, NY 11356  
(718) 445-4700

**Queens Center for Progress**

81-15 164<sup>th</sup> Street  
Jamaica, NY 11432  
(718) 380-3000

**Queens Hospital Center for  
Child Development, Room T-2B**

82-68 164<sup>th</sup> Street, Building N  
Jamaica, NY 11432  
(718) 883-4330

**Shield Institute**

144-61 Roosevelt Avenue  
Flushing, NY 11354  
(718) 939-8700

**St. Vincent Catholic Medical Centers of  
New York Behavioral Health Services  
Adult Inpatient Psychiatry Program  
at St. Joseph's Hospital**

158-40 79th Avenue  
Flushing, NY 11414  
(718) 725-9000

**Staten Island**

**Staten Island Mental Health Society**

669 Castleton Avenue  
Staten Island, NY 10301  
(718) 442-2225

**St. Vincent Catholic Medical Centers  
of New York**

**Community Treatment Center**

355 Bard Avenue  
Staten Island, NY 10304  
(718) 390-6000

**Staten Island University Hospital, Richmond  
Memorial Hospital and Health Care Center**

375 Seguire Avenue  
Staten Island, NY 10309  
(718) 226-2000

**New York State Office of  
Mental Retardation and  
Developmental Disabilities  
(OMRDD)**

[www.omr.state.ny.us](http://www.omr.state.ny.us)

**New York City Regional Office**

75 Morton Street, 6th floor  
NY, NY 10014  
(212) 229-3231

**Metro New York Developmental  
Disabilities Services Office (DDSO)**

**Bronx Office**

2400 Halsey Street  
Bronx, NY 10461  
(718) 430-0885

**Manhattan Office**

75 Morton Street  
New York, NY 10014  
(212) 229-3216

**Brooklyn Developmental Disabilities  
Services Office**

888 Fountain Avenue  
Brooklyn, NY 11208  
(718) 642-6000

**Queens Developmental Disabilities  
Services Office**

80-45 Winchester Boulevard, Bldg. 12  
Queens Village, NY 11427  
(718) 217-6831

**Staten Island Developmental Disabilities  
Services Office**

1150 Forest Hill Road  
Staten Island, NY 10314  
(718) 983-5321

**Institute For Basic Research (IBR)**

**George A. Jervis Clinic**

1050 Forest Hill Road  
Staten Island, NY 10314  
(718) 494-5126

**1. The Federal Developmental Disabilities Act contains a description of a developmental disability that is based predominantly on:**

- A. Medical diagnoses
- B. Descriptions of types of disabilities
- C. Descriptions of functional impairments associated with disabilities
- D. Prevalence rates estimates for developmental disabilities

**2. The likelihood that a child born weighing < 1000 grams will have a future neurodevelopmental abnormality is:**

- A. 10%     B. 25%     C. 30%     D. 40%

**3. When treating both children and adults with Down syndrome, physicians need to be vigilant in looking for symptoms of neurological damage resulting from:**

- A. Head injuries
- B. Atlantoaxial subluxations
- C. Congenital heart disease
- D. Recurrent upper respiratory infections

**4. Most health difficulties among adolescents with developmental disabilities are due to:**

- A. Chronic medical conditions
- B. Trips and falls
- C. Behavior that threatens their health and well-being
- D. Sports injuries

**5. Which of the following is NOT an oral hygiene and dentition problem faced by individuals with MR/DD?**

- A. Missing teeth or an aberrant tooth morphology
- B. Dental and gum problems due to medication use
- C. Oral trauma related to a seizure disorder
- D. Oral abnormalities due to biting people

**6. How well did this continuing education activity achieve its educational objectives?**

- A. Very well     B. Adequately     C. Poorly

Name \_\_\_\_\_

Degree \_\_\_\_\_ Telephone # \_\_\_\_\_

Address \_\_\_\_\_

E-mail address \_\_\_\_\_

## CME Activity

This issue of *City Health Information*, including the continuing education activity, can be downloaded in the publications section at [nyc.gov/health](http://nyc.gov/health). To access *City Health Information* and Continuing Medical Education online, visit [www.nyc.gov/html/doh/html/chi/chi.html](http://www.nyc.gov/html/doh/html/chi/chi.html)

### Instructions

Read this issue of *City Health Information* for the correct answers to questions.

To receive continuing education credit, you must answer 4 of the first 5 questions correctly.

If you would like to participate in this activity by submitting the response card

1. Complete all information on the response card, including your name, degree, mailing address, telephone number, and e-mail address. PLEASE WRITE CLEARLY.
2. Select your answers to the questions, and check the corresponding boxes on the response card.
3. Return the response card or a photocopy of the card postmarked no later than December 31, 2003. Mail to CME Administrator, NYC Department of Health and Mental Hygiene, 125 Worth Street, CN-29C, New York, NY, 10013.

## Resources (Continued)

### Early Intervention Program

Central Office: (212) 219-5580  
EIP Hotline: 800-577-BABY(2229)  
TTY:(212) 219-5648  
Fax: (212) 219-5661

Free, confidential information and referral service for parents of infants and toddlers who may have a developmental delay.

LIFENET for mental health information and assistance:

In English: 1-800-LIFENET (1-800-543-3638)

In Spanish: 1-877-AYUDESE (1-877-298-3373)

In Chinese: 1-800-ASIAN LIFENET (1-877-990-8585)

### New York City Department of Health and Mental Hygiene

Division of Mental Hygiene  
Office of Mental Retardation and Developmental Disabilities Services  
(212) 219-5212  
[www.nyc.gov/health](http://www.nyc.gov/health)

Borough directories of MR/DD services may be obtained from the New York City Department of Health and Mental Hygiene (NYC DOHMH), Office of Mental Retardation and Developmental Disabilities Services. They can also be accessed at [www.nyc.gov/html/doh/html/bureau/mrdddirectory.html](http://www.nyc.gov/html/doh/html/bureau/mrdddirectory.html).

## ONLINE CME/CNE ACTIVITIES

To participate in *City Health Information* CME/CNE activities online, visit [www.nyc.gov/html/doh/html/chi/chi.html](http://www.nyc.gov/html/doh/html/chi/chi.html).

Those respondents who participate will have their responses graded immediately; participants who pass will be able to generate a certificate immediately.

## MR/DD REFERENCES ONLINE

To view references for this publication, visit [www.nyc.gov/html/doh/html/chi/chi-ref.html](http://www.nyc.gov/html/doh/html/chi/chi-ref.html)



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