Welcome To the ADHD Owner's Manual

Definition

The DSM IV definition of ADHD is: Associated Diagnoses

A. Either (1) or (2)

(1) six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

(2) six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

C. Some impairment from the symptoms is present in two or more settings (e.g. at school[or work] and at home).

D. There must be clear evidence of clinically significant impairment in social, academic, or occupational funtioning.

E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g. Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

ADHD NOS

Inattention

(a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities

(b) often has difficulty sustaining attention in tasks or play activities

(c) often does not seem to listen when spoken to directly

(d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)

(e) often has difficulty organizing tasks and activities

(f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)

(g) often loses things necessary for tasks or activities (e.g. toys, school assignments, pencils, books, or tools)

(h) is often easily distracted by extraneous stimuli

(i) is often forgetful in daily activities

Hyperactivity-Impulsivity

Hyperactivity

(a) often fidgets with hands and feet or squirms in seat

(b) often leaves seat in classroom or in other situations in which remaining seated is expected

(c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)

(d) often has difficulty playing or engaging in leisure activities quietly

(e) is often "on the go" or often acts as if "driven by a motor"

(f) often talks excessively

Impulsivity

(g) often blurts out answers before questions have been completed

(h) often has difficulty awaiting turn

(i) often interrupts or intrudes on others (e.g. butts into conversations or games)

Demographics

- ADHD is 5 to 7 times more common in boys.
- ADHD occurs in people of every level of intelligence.
- ADHD tends to run in families, and there is an association with a family history of alcoholism and / or depression.
- There is some suggestion clinically that asthma may be more prevalent in ADHD children.
- ADHD children often show considerable ability with artistic endeavors, but may have difficulty forming symbols (writing) unless "drawing", going very slowly and precisely.
- ADHD is much more commonly diagnosed in the United States than in Europe, and the stimulant medications are used vastly more in the United States as an intervention strategy.

Learning Disabilities

Difficulties in learning are common in ADHD. Estimates range from 18 to 40 % of those with ADHD have associated learning disabilities.

The commonest learning problems seen in ADHD children and adults are

Dysgraphia

Gerstmann's Syndrome

Dyslexia

Educational Interventions

Medication

A variety of medications have been used in ADHD treatment. They include:

Stimulants

Antidepressants

Clonidine

The antimanic/anticonvulsant Tegretol has also been used effectively.

An excellent review of the use of medication in ADHD is found in

Spencer, Thomas, et. al., Pharmacotherapy of Attention-Deficit Hyperactivity Disorder across the Life Cycle, J.Am. Acad. Child Adolesc. Psychiatry, 35:4, April 1996

Stimulants

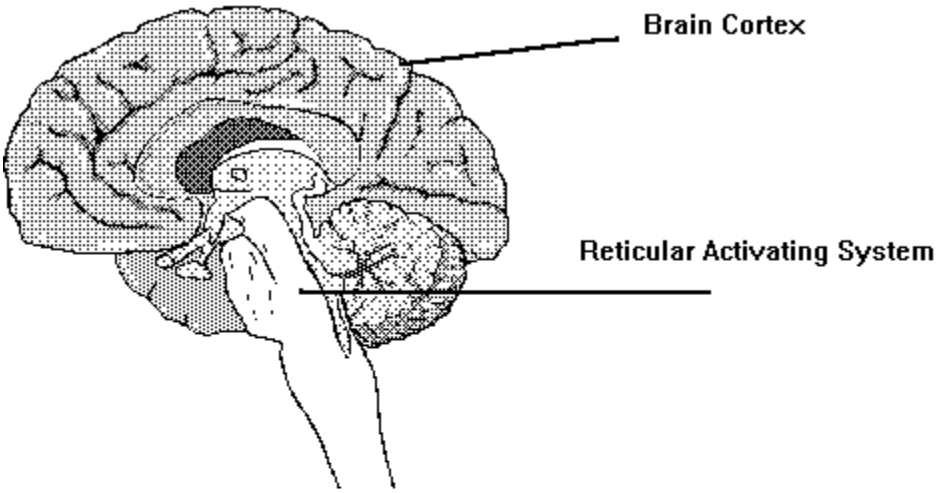
The common stimulants are :

- Short Acting Ritalin
- Sustained Release Ritalin
- Dextroamphetamine
- Cylert (Pemoline)

Stimulant medications may be effective in 70-75% of patients diagnosed appropriately with ADHD. Cylert appears to be less potent in its activity, and often takes several weeks to start working. It is probably best reserved for younger children who need a chewable medication, or for situations where the patient has had an "overreaction" to other stimulants. Although not common, children will sometimes appear to be withdrawn, depressed and tearful if the dosage of stimulants is too high. It is best to start with a low dosage and gradually increase it as needed. Too high a dose of stimulant medications has lead to hallucinations and paranoid thinking in a small number of cases.

The Neurology of ADHD

The lower portion of the brain contains an area known as the Reticular Activating System. It keeps the higher brain centers alert and ready for input. There is some evidence that this area is not working properly in ADHD, and that the brain is, in effect, " going to sleep". Hyperactivity is really the brain's attempt to generate new stimulation to maintain alertness. For more information,see : Kinomura et. al., Science, Jan. 26,1996, Vol. 271, pp. 512-515



ADHD NOS

314.9 Attention Deficit /Hyperactivity Disorder Not Otherwise Specified

This category is for disorders with prominent symptoms of inattention or hyperactivity-impulsivity that do not meet criteria for Attention-Deficit/Hyperactivity Disorder.

Conduct Disorder

312.8 Conduct Disorder

A. A repetitive and persistant pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of 3 (or more) of the following criteria in the past 12 months, with at least one criterion present in the past 6 months:

- Aggression to People/Animals
- Destruction of Property
- Serious Violations of Rules

B. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

C. If the individual is age 18 yeas or older, criteria are not met for Antisocial Personality Disorder.

Additional Specifiers:

Age re Conduct Disorder

Severity re Conduct Disorder

Aggression to People/Animals

- (1) often bullies, threatens, or intimidates others
- (2) often initiates physical fights
- (3) has used a weapon that can cause serious physical harm to others (e.g. a bat, brick, broken bottle, knife, gun)
- (4) has been physically cruel to people
- (5) has been physically cruel to animals
- (6) has stolen while confronting a victim (e.g. mugging, purse snatching, extortion, armed robbery)
- (7) has forced someone into sexual activity

Destruction of Property

- (8) has deliberately engaged in fire setting with the intention of causing serious damage
- (9)has deliberately destroyed other's property (other than by fire setting)

Associated Diagnoses

Conduct Disorder

Learning Disabilities

Tourette's Syndrome

Some not uncommon findings in ADHD children include:

Difficulty orienting themselves in space.....often manifested by running their hands down walls when they are in a new setting.

Poor social distance perception....watch at a large playground. The ADHD child is often "bounce out" of large play groups for failing to appreciate and follow the social norms.

Rapid, explosive anger that is quickly gone....this leaves those around them furious and upset, as they are still angry. The ADHD child is confused, as his anger has dissipated already.

Deceitfulness or Theft

- (10) has broken into someone else's house, building, or car
- (11) often lies to obtain goods or favors or to avoid obligations (i.e. "cons others")
- (12) has stolen items of nontrivial value without confronting a victim (e.g. shoplifting, but without breaking and entering; forgery)

Serious Violations of Rules

- (13) often stays out at night despite parental prohibitions, beginning before 13 years old
- (14) has run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a lengthy period)
- (15) often truant from school, beginning before age 13 years

Antidepressants

- Tricyclic Antidepressants
- SSRI
- Atypical Antidepressants

Clonidine

also known as Catapress, is often prescribed in adults for high blood pressure. One of the common side effects with it is that it drops the blood pressure. This can result a "head rush", a sense of feeling faint due to too little blood reaching the brain because of low blood pressure.

Clonidine is usually prescribed as a 0.1 mg tablet or as a patch. Small doses (0.05 mg or 1/2of a TTS 1 patch) may be all that is needed to help control overly aggressive ADHD children. There have been some reports of adverse side effects of combining Ritalin and Clonidine.

Clonidine is quite sedating, and should be used at the lowest effective dose. It should be tapered off and never stopped suddenly, as sudden cessation can cause rebound high blood pressure.

The clonidine patch frequently is irritating to the skin, and may require use of a steroid cream and frequent movement of its location to avoid severe skin reactions.

The Feeling of Having ADHD

Having ADHD is like being put into a dark room with things scattered around to trip you. You don't get a flashlight.....but everyone else does. You trip around the room, bumping into things, until you finally learn the layout of the room. Then someone moves you to a new room, and the process starts again.

It's like having a whirlwind in your mind. Everything seems to be blowing around and nothing stays put. Some people have compared the feeling to watching someone change the channels on the TV every few seconds. You can get a general idea of what is going on, but you miss most of the content.

People with ADHD tend to be socially blind. They may miss rules and structures which other people see much more readily.

ADHD in the Workplace

Socially Blind

5 boys are playing at recess, doing things they shouldn't. Suddenly, the teacher comes around the corner. Four of the boys stop almost immediately, while the ADHD child "just keeps going". The ADHD child feels singled out and treated unfairly. He was " just doing what everyone else did".

Age re Conduct Disorder

Childhood-Onset Type: onset of at least one criterion characteristic of Conduct Disorder prior to age 10 years

Adolescent-Onset Type: absence of any criteria characteristic of Conduct Disorder prior to age 10 years

Severity re Conduct Disorder

Degree	Definition
Mild	Few if any symptoms in excess of those required for diagnosis conduct problems cause only minor problems for others
Intermediate	Number of problems and effect on others intermediate between mild and severe
Severe	Many conduct problems in excess of those required for diagnosis conduct problems cause considerable harm to others

Dysgraphia

There is often a difficulty in ADHD children connecting the input the muscles give to the brain. This makes otherwise simple tasks incredibly difficult. Imagine for a moment that you had to look for your hands every time you wanted to take hold of something. You would need to be paying much more attention than you do now, and would have difficulty every time you stopped paying attention.

An unusual feature in many ADHD patients is that , while they have difficulty with writing legibly, they are often skilled artisitically and able to make intricate pictures with litttle difficulty. The problem appears to be in the conversion of symbolic information.

A dysgraphia joke : " What do you call someone with bad handwriting?" Answer: **A DOCTOR!**

Remediation of handwriting, though often attempted, is often futile. Use of bypass methods, such as typewriters, computers, and tape recorders are often much more effective. A key goal is to allow the person to process information as fast as they can think. Trying to write if you are dysgraphic is like trying to pour an ocean through a garden hose.

Some tips on bypass techniques

Dexedrine

Dexedrine (or Dextroamphetamine) is a stimulant used in the treatment of ADHD. It comes in both long and short acting forms. The short acting tablet comes in 5 mg dosages, and reaches a peak level two hours after administration. The longer acting spansule is available in 5 mg, 10 mg, and 15 mg sizes and reaches a peak blood level eight to 10 hours after administration. This permits once daily dosing with the spansule.

The half life of dexedrine (tablet) is approximately 10 hours, significantly longer than Short Acting Ritalin

Shareware

This program is shareware. It is not crippled in any way, and may be freely copied and distributed. Schools are free to use the software without charge, but individuals who take the program from the school are requested to register the program.

The program may be registered by sending $10 to :

Edutech 4421 Algeciras San Diego,CA 92107

Please email us your comments on this program, and suggestions for other programs to:

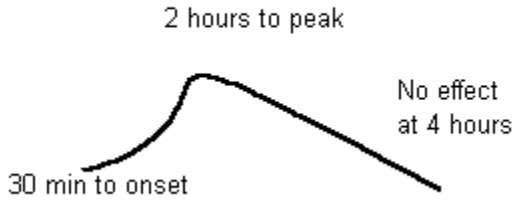
Edutech@ix.netcom.com or Hypert@aol.com or Edutech@compuserve.com

This program is

Short Acting Ritalin

The short acting form generally starts working about a half hour after it is given, peaks at 2 hours and is gone at 4 hours. It has a half life of 2-3 hours. It must be taken several times daily to maintain effectiveness.

Regular Ritalin Average Response Curve



It comes in 5 mg, 10 mg, and 20 mg tablets. The tablets tend to be bitter, and are best swallowed whole.

Common side effects are headache or stomach ache, usually minimized by taking the medication after having food.

Sustained Release Ritalin

The long acting form (Ritalin SR) comes only in a 20 mg tablet. It is designed to slowly release its contents from a series of "microchannels", and the tablet can not be cut. This dosage form is quite variable, working well for some people but poorly for others. It may be worth trying if a child on Ritalin is very resistant to taking medication at school. It tends to start acting more slowly than regular Ritalin, often taking 1.5 hours to start working. For this reason, it is often given with a small dose of regular Ritalin in the morning to provide initial coverage. Ritalin SR peaks at approximately 4.5 hours from the time it is administered.

It is not uncommon to have parents report a "rebound hyperactivity" in the late afternoon as the long acting Ritalin wears off.

Tricyclic Antidepressants

The Tricyclic (" three circles"...for the chemical structure of the molecule) antidepressants were once the mainstay of treatment in ADHD, but are used less frequently now. They have many side effects, especially dry mouth, dizzyness when standing up quickly, blurring of vision, and constipation. They can be quite dangerous in overdose, especially compared to the newer SSRI's.

Several cases of sudden death in children have been reported on the tricyclic antidepressant Desipramine. This should be taken seriously, but these medicines have been used for decades in children with good responses in many cases.

An electrocardiagram is recommended prior to starting a tricyclic, and peridically while the medication is being given, or if the dose is raised signficantly. There is not good evidence that this has any protective effect with regard to cardiac complications.

Examples

Name Dosages

Imipramine 10,25,50 mg

Desipramine 10,25,50,75,100,150 mg

Nortriptyline 10,25,50,75 mg Capsules

Gerstmann's Syndrome

The **developmental** Gerstmann's syndrome is characterized by:

Finger agnosia.....difficulty locating body parts in space

Dyscalculia.....difficulty with mathematics

Right-Left disorientation

Dygraphia...difficulty in writing

Behavioral Interventions

Children with ADHD, according to Paul Wender ,M.D. (Professor of Psychiatry, University of Utah) are "difficult to reward and difficult to punish". It is as if they lived in an "emotional raincoat", one which prevented them from fully experiencing emotions directed toward them. While this can keep them from feeling the full effects of their problematic behaviors, it makes modifying these behaviors very difficult. This is one of the reasons many parents report that behavior modification systems work for only a very short time (2-3 weeks at most) with these children.

Among the most effective ways of dealing with ADHD children is Back In Control , a behavioral intervention program based on RULES.

Bypass Tips

Tape Recorders---get one with a remote microphone jack and a tape counter. The recorder can be connected to an inexpensive handheld microphone with an On/Off switch on it. This allows the control of the recorder without having to constantly start and stop the machine with the buttons. It seems to be easier than the controls on the machine that many microcassette recorders use, as well. The tape counter allows for note taking by simply writing down a topic and the counter number. This allows review of information quickly without having to relisten to the entire tape. A simple foot pedal switch available for under $5 can allow the tape recorder to function as a dictation system, and leave the hands free for typing.

Spelling-- children with ADHD are often phonetic (i.e. "poor") spellers. They have difficulty using an ordinary dictionary, because they can not look up the word the way it sounds. Small paperback dictionaries , such as the " Poor Speller's Dictionary" exist, and are often very useful. They contain words spelled phonetically along with their correct spellings. Just remember to lose the cover before the child takes it to school. Who wants to carry a book that says " I can't spell" on the cover?

Computers-- Word processors and spelling checkers can help, but they only decrease the work on rewrites. If money is not an issue, programs exist to type directly from voice dictation. This is still fairly expensive. Simpler solutions include the use of macros in word processor (common phrases are typed with a single key stroke) and having someone type from a taped dictation.

Back In Control

The "Back In Control" © program by Gregory Bodenhamer has unique advantages over many of the Reward/Punishment models of intervention with ADHD. It is a rule based system, which does not depend upon the desire of the child to comply. It is, in fact, a **parent** training system.

It asks parents to:

Define a few clear,precise rules (you get exactly what you ask for, no more and no less)

Make the rules clear enough that a sitter could enforce them just as you would

Enforce the rules absolutely

Never reward or punish a rule.....ENFORCE it

Never argue with a child about a rule.....use "unhooking" words like "Nevertheless" or "Be that as it may"

Some Problems:

Most parents are willing to give up rewarding. Few really want to give up punishing.

Most parents have difficulty not yelling at a child when mad at them. This is only useful if you feel the child has a hearing problem. In fact, it tends to give the child the upper hand and to let the child divert you from the original rule. It is to the child's advantage to discuss with you " how unfair you are" rather than to clean up the room as originally directed.

Dyslexia

Dyslexia is literally difficulty in reading. It may be associated with difficulty in spelling. It may be useful to use bypass techniques, such as books on tape, in severe cases. The Library of Congress provides access to the National Library for the Blind, a huge collection of taped books, for those who have been certified dyslexic by a licensed medical practictioner.

Internet Information Sources

The World Wide Web is a constantly changing source of information, much of it of less than first rate quality.

One source of information on ADHD and the medication to treat it which is both reliable and extremely easy to use is:

http://www.mentalhealth.com Internet Mental Health Philip Long, M.D.

This Canadian site gives both U.S. and European definitions of syndromes and treatment strategies, making it particularly useful.

A powerful search tool for additional information is AltaVista by Digital. This can be found at:

http:// altavista.digital.com

Educational Interventions

Public Law 94-142 - Federal law which requires that a child be educated according to "assessed needs". This means that an assessment must be conducted in a timely fashion, the parents must be included in the decision making process, and that the plan for correction of problems found (if any) must be documented in writing and implemented promptly.

504 - allows modification of traditional programs to meet special needs

ADA- Americans with Disabilities Act, provides reasonable accommodation to special needs and includes ADHD as one of the qualifying criteria

Tips for the Teacher

Some Additional Reference Material

Tips for the Teacher

1. Consistency is the key to helping ADHD children. They are really poor at dealing with change, even if it is positive change. They need to have a sense of external structure, as they tend to lack a sense of internal structure.

2. ADHD kids have two kinds of time...plenty and none. They are usually poor at organizing their time and need you to help them break tasks down into small components.

3. Placing ADHD kids at the front of the room (nearest the blackboard or where the teacher gives instruction) is often helpful. If the child is right handed, placing them at the right front of the class minimizes the number of children they watch wiggle when they write.

4. Try to avoid placing ADHD children in loft classrooms or in situations with multiple children at a single desk. This maximizes their distractability.

5. Use colors and shapes to help them organize.

6. Try to provide a quiet study area, free from distraction, when seat work is required.

7. Try to work within the child's attention span. Keep changing the type of work frequently and the child can continue to work productively. Medication is NOT the only solution.

8.Remember, these children have a tendency to get people around them fighting. Try to avoid getting into "blaming mode", either as a parent or a teacher.

9. Many of these children are VISUAL learners. Try making things more visual or tactile and they may grasp them better. Instead of memorizing words, ask them to " make a movie in their head and play it back".

10. Don't worry if you feel frustrated...so do their parents and so do the kids. Just don't take their behavior as personally directed, because it isn't in most cases.

Tourette's Syndrome

Tourette's Syndrome is a neurological condition in which many of the symptoms of ADHD are present. It has been diagnosed with increasing frequency in recent years, and there is variability in how the diagnosis is made by different physicians.

Classically, it is characterized by:

Tics - defined in DSM IV as " sudden, rapid, recurrent, nonrythmic stereotyped motor movement or vocalization". These tics may be motor, vocal, or emotional.

Onset prior to 18 and tics occurring nearly daily and never free of tics for more than 3 consecutive months

Impaired function or significant distress

Ritalin and other stimulants used to treat ADHD may produce an increased incidence of tics in some people. This remains an area of active investigation.

Cylert (Pemoline)

Pemoline is similar to the other stimulants in its side effects, tending to cause insomnia and decreased appetite.

It reaches a peak two to fours hours after it is taken, and has a half life of 12 hours. This relatively long half life means that it can be taken once daily.

Pemoline is metabolized by the liver, and has been associated with some cases of liver inflammation. Liver function should be tested prior to starting this medication and done periodically during the course of therapy to monitor for inflammation of the liver.

Pemoline is the only stimulant which comes in a chewable form, making it useful for small children who can not otherwise take a bitter tasting stimulant.

Cylert comes in 18.75, 37.5 and 75 mg tablets and in a chewable tablet in 37.5 mg.

Definitions

half life	the time required for one half of the available material to be removed from the body

ADA

OVERVIEW OF THE AMERICANS WITH DISABILITIES ACT OF 1990 JULY 26, 1990

The purpose of the ADA is to provide a clear and comprehensive national mandate to end discrimination against individuals with disabilities and to bring persons with disabilities into the economic and social mainstream of American life; to provide enforceable standards addressing discrimination against individuals with disabilities, and to ensure that the federal government plays a central role in enforcing these standards on behalf of individuals with disabilities.

Definition of the term "disability."

The ADA defines "disability" to mean, with respect to an individual: a physical or mental impairment that substantially limits one or more of the major life activities of such individual, a record of such an impairment, or being regarded has having such an impairment. This is the same definition included in section 504 of the Rehabilitation Act of 1973, the Fair Housing Act Amendments, and the Air Carriers Access Act.

Employment

Title I of the ADA specifies that an employer, employment agency, labor organization, or joint labor-management committee may not discriminate against any qualified individual with a disability in regard to any term, condition or privilege of employment. The ADA incorporates many of the standards of discrimination set out in regulations implementing section 504 of the Rehabilitation Act of 1973, including the obligation to provide reasonable accommodations unless it would result in an undue hardship on the operation of the business.

The ADA incorporates by reference the enforcement provisions under title VII of the Civil Rights Act of 1964. Currently, remedies available under Title VII include injunctive relief and back pay.

Title I goes into effect two years after the date of enactment. For the first two years after the effective date, employers with 25 or more employees are covered. Thereafter, employers with 15 or more employees are covered.

Public services, including public transportation services provided by public entities

Title II of the ADA specifies that no qualified individual with a disability may be discriminated against by a public entity, i.e., a state and local government or a department, agency, special purpose district or other instrumentality of a state or a local government, or by AMTRAK or a commuter rail authority.

In addition to a general prohibition against discrimination, Title II includes specific requirements applicable to public transit authority, commuter rail authorities, and AMTRAK.

With respect to public transportation provided by public transit authorities, all new fixed route buses must be made accessible unless a transit authority can demonstrate to the Secretary of Transportation that no lifts are available from qualified manufacturers, despite the fact that good faith efforts have been made to locate such lifts, and that a further delay in purchasing new buses would significantly impair transportation services in the community served. A public transit authority must also provide paratransit for those individuals who cannot otherwise use mainline accessible transportation (and to one person associated with an individual with a disability or additional persons associated with the individual with the disability if the additional persons do not displace other individuals with disabilities) up to the point where the provisions of such supplementary services would pose an undue financial burden on the transit authority.

With respect to AMTRAK, all new intercity vehicles must be readily accessible to and usable by individuals with disabilities. Special rules are included specifying the standards of accessibility for

people using wheelchairs for each category of passenger car. With respect to new cars used by commuter rail authorities, such cars must be accessible. However, special rules are delineated explaining the meaning of "accessibility" for people who use wheelchairs.

New stations must be designed and constructed in an accessible manner. Key existing stations serving rapid rail and light rail systems must be made accessible as soon as practicable not in no more than 30 years where modifications are extraordinarily expensive (with two-thirds of the stations to be made accessible within 20 years). For key existing stations serving commuter rail, the time frame is 20 years as it is for all stations serving AMTRAK.

Title II incorporates by reference the enforcement provisions in section 505 of the Rehabilitation Act of 1973.

Title II takes effect 18 months after the date of enactment, with the exception of the obligation to ensure that new public buses are accessible, which takes effect for solicitations made 30 days after the date of enactment.

Public accommodations and services provided by private entities

Title II of the ADA specifies that no individual shall be discriminated against on the basis of disability in the full and equal enjoyment of the goods, services, facilities, privileges, advantages, and accommodations by any person who owns, leases (or leases to), or operates a place of public accommodation. Public accommodations include: restaurants, hotels, doctor's offices, pharmacies, grocery stores, shopping centers, and other similar establishments.

Existing facilities must be made accessible if the changes are "readily achievable" i.e., easily accomplishable without much difficulty or expense. Auxiliary aids and services must be provided unless such provisions would fundamentally alter the nature of the program or cause an undue burden. New construction and major renovations must be designed and constructed to be readily accessible to an usable by people with disabilities. Elevators need not be installed if the building has lees than three stories or has less than 3,000 square feet per floor except if the building is a shopping center, shopping mall, or offices for health care providers or if the Attorney General decides that other categories of buildings require the installation of elevators.

Title III also includes specific prohibitions on discrimination in public transportation services provided by private entities, including the failure to make new over-the-road buses accessible six years from the date of enactment for large providers and seven years for small providers. "Accessibility" will be defined in regulations issued by the Secretary of Transportation and reflect the results of a 3-year study conducted by the Office of Technology Assessment. Lifts are not necessarily required on all new buses.

Title III incorporates enforcement provisions in private actions comparable to the applicable enforcement provisions in Title II of the Civil Rights Act of 1964 (injunctive relief) and provides for pattern and practice cases by the Attorney General. The Attorney General may also seek monetary (not punitive) damages on behalf of an aggrieved individual and civil penalties.

The provisions of Title III become effective 18 months after the date of enactment. However, except for actions relating to the failure to make alterations and new construction readily accessible to an usable by individuals with disabilities, no civil action may be brought for any act or omission considered discriminatory under the Act against businesses that employ 25 or fewer employees and have gross receipts of $1,000,000 or less during the first six months after the effective date and no civil actions may be brought for any act or omission considered discriminatory under the Act against business that employ 10 or fewer employees and have gross receipts of $500,00 or less during the first year after the effective date.

Telecommunication relay services

Title IV of the ADA specifies that telephone services offered to the general public must include interstate and intrastate telecommunication relay services so that such services provide individuals

who use non-voice terminal devices because of disabilities (such as deaf persons) with opportunities for communications that are equivalent to those provided to individuals able to use voice telephone services.

Miscellaneous provisions

Title V of the ADA includes miscellaneous provisions, including coverage of Congress, a construction clause explaining the relationship between the provisions in the ADA and the provisions in other Federal and State laws; a construction clause explaining that the ADA does not disrupt the current nature of insurance underwriting; a prohibition against retaliation; a clear statement that States are not immune from actions in courts of competent jurisdiction for a violation of the ADA; a directive to the Architectural and Transportation Barriers Compliance Board to issue guidelines; and authority to award attorney's fees. .

504

---------- selected portions from Section 504 of the Rehabilitation Act of 1973

(a) No otherwise qualified handicapped individual in the United States, as defined in section 706(6) of this title, shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive agency or by the United States Postal Service. The head of each such agency shall promulgate regulations as may be necessary to carry out the amendments to this section made by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Act of 1978. Copies of any proposed regulation shall be submitted to appropriate authorizing committees of the Congress, and such regulation may take effect no earlier than the thirtieth day after the date on which such regulation is so submitted to such committees.

[Adopted by Pub. L. 93-112, Title V, Sec. 504, Sept. 26, 87 Stat. 394; amended by Pub. L. 95-602, Title I, Sec. 119, Nov. 6, 1978, 92 Stat. 2982 and by Pub. L. 100-259, Title V, Sec. 4, Mar. 22, 1988, 102 Stat. 29.]

(b) For the purposes of this section, the term `program or activity' means all of the operations of --

(1)(A) a department, agency, special purpose district, or other instrumentality of a State or of a local government; or

(B) the entity of such State or local government that distributes such assistance and each such department or agency (and each other State or local government entity) to which the assistance is extended, in the case of assistance to a State or local government;

(2)(A) a college, university, or other postsecondary institution, or a public system of higher education; or

(B) a local educational agency (as defined in section 198(a)(10) of the Elementary and Secondary Education Act of 1965), system of vocational education, or other school system;

(3)(A) an entire corporation, partnership, or other private organization, or an entire sole proprietorship --

(i) if assistance is extended to such corporation, partnership, private organization, or sole proprietorship as a whole; or

(ii) which is principally engaged in the business of providing education, health care, housing, social services, or parks and recreation; or

(B) the entire plant or other comparable, geographically separate facility to which Federal financial assistance is extended, in the case of any other corporation, partnership, private organization, or sole proprietorship; or

(4) any other entity which is established by two or more of the entities described in paragraph (1), (2), or (3);

any part of which is extended Federal financial assistance.

[Paragrah (b) added by Pub. L. 100-259, Title V, Sec. 4, Mar. 22, 1988, 102 Stat. 29.]

Some Additional Reference Material

What Are Sources of Information and Support?

Several publications, organizations, and support groups exist to help individuals, teachers, and families to understand and cope with attention disorders. The following resources provide a good starting point for gaining insight, practical solutions, and support. Other resources are outpatient clinics of childrenþs hospitals, university medical centers, and community mental health centers. Additional printed information can be found at libraries and book stores.

Books for Children and Teens:

Galvin, M. Otto Learns about his Medication. New York: Magination Press, 1988. (for young children)

Gehret, J. Learning Disabilities and the Don't Give Up Kid. Fairport, New York: Verbal Images Press, 1990. (for classmates and children with learning disabilities and attention difficulties, ages 7-12)

Gordon, M. Jumpin' Johnny, Get Back to Work! A Child's Guide to ADHD/Hyperactivity. DeWitt, New York: GSI Publications, 1991. (for ages 7-12)

Meyer, D.; Vadasy, P.; and Fewell, R. Living with a Brother or Sister with Special Needs: A Book for Sibs. Seattle: University of Washington Press, 1985.

Moss, D. Shelly the Hyperactive Turtle. Rockville, MD: Woodbine House, 1989. (for young children)

Nadeau, K., and Dixon, E. Learning to Slow Down and Pay Attention. Annandale, VA: Chesapeake Psychological Publications, 1993.

Parker, R. Making the Grade: An Adolescent's Struggle with ADD. Plantation, FL: Impact Publications, 1992.

Quinn, P., and Stern, J. Putting on the Brakes: Young People's Guide to Understanding Attention Deficit Hyperactivity Disorder. New York: Magination Press, 1991. (for ages 8-12)

Thompson, M. My Brother Matthew. Rockville, MD: Woodbine House, 1992.

Books for Adults With Attention Disorders:

Adelman, P., and Wren, C. Learning Disabilities, Graduate School, and Careers: The Student's Perspective. Lake Forest, IL: Learning Opportunities Program, Barat College, 1990.

Hallowell, E., and Ratey, J. Driven to Distraction. New York: Pantheon Books, 1994.

Hartmann, T. Attention Deficit Disorder: A New Perception. Lancaster, PA: Underwood-Miller, 1993.

Kelly, K., and Ramundo, P. You Mean I'm Not Lazy, Stupid, or Crazy?! Cincinnati, OH: Tyrell and Jeremy Press, 1993.

Weiss, G., and Hechtman, L. (eds). Hyperactive Children Grown Up. 2d ed. New York: Guilford Press, 1992.

Weiss, L. Attention Deficit Disorder in Adults. Dallas, TX: Taylor Pub. Co., 1992.

Wender, P. The Hyperactive Child, Adolescence, and Adult: Attention Deficit Disorder Through the Lifespan. New York: Oxford University Press, 1987.

Books for Parents:

Anderson, W.; Chitwood, S.; and Hayden, D. Negotiating the Special Education Maze: A Guide for Parents and Teachers. 2d ed. Rockville, MD: Woodbine House, 1990.

Bain, L. A Parent's Guide to Attention Deficit Disorders. New York: Dell Publishing, 1991.

Barkley, R. Defiant Children. New York: Guilford Press, 1987.

Child Psychopharmacy Center, University of Wisconsin. Stimulants and Hyperactive Children. Madison: 1990. (Order by calling (608) 263-6171.)

Copeland, E., and Love, V. Attention, Please!: A Comprehensive Guide for Successfully Parenting Children with Attention Disorders and Hyperactivity. Atlanta, GA: SPI Press, 1991.

Fowler, M. Maybe You Know My Kid: A Parent's Guide to Identifying, Understanding, and Helping your Child with ADHD. New York: Birch Lane Press, 1990.

Goldstein, S., and Goldstein, M. Hyperactivity: Why Won't My Child Pay Attention? New York: J. Wiley, 1992.

Greenberg, G.; Horn, S.; and Wade F. Attention Deficit Hyperactivity Disorder: Questions & Answers for Parents. Champaign, IL: Research Press, 1991.

Ingersoll, B., and Goldstein, S. Attention Deficit Disorder and Learning Disabilities: Realities, Myths, and Controversial Treatments. New York: Doubleday, 1993.

Kennedy, P.; Terdal, L.; and Fusetti, L. The Hyperactive Child Book. New York: St. Martrin's Press, 1993.

Moss, R., and Dunlap, H. Why Johnny Can't Concentrate: Coping with Attention Deficit Problems. New York: Bantam Books, 1990.

Silver, L. Dr. Silver's Advice to Parents on Attention-Deficit Hyperactivity Disorder. Washington, DC: American Psychiatric Press, 1993.

Vail, P. Smart Kids with School Problems. New York: EP Dutton, 1987.

Wilson, N. Optimizing Special Education: How Parents Can Make a Difference. New York: Insight Books, 1992.

Windell, J. Discipline: A Sourcebook of 50 Failsafe Techniques for Parents. New York: Collier Books, 1991.

Other Resources:

For individuals with a computer and modem, there are on-line bulletin boards where parents, adults with ADHD, and medical professionals share experiences, offer emotional support, and ask and respond to questions.

Two such on-line services include CompuServe [(800) 848-8990] and America Online [(800) 827-6364]. You may also wish to check with other national and local on-line communications companies to see if they offer similar services.

Resources for Teachers and Specialists:

Barkley, R. Attention Deficit Hyperactivity Disorder (four 40-minute videocassettes in VHS format). New York: Guilford Publications, 1990.

Copeland, E., and Love, V. Attention Without Tension: A Teacher's Handbook on Attention Disorders. Atlanta, GA: 3 C's of Childhood, 1992.

Harris, K., and Graham, S. Helping Young Writers Master the Craft. Cambridge, MA: Brookline Books, 1992.

Johnson, D. I Can't Sit Still-Educating and Affirming Inattentive and Hyperactive Children: Suggestions for Parents, Teachers, and Other Care Providers of Children to Age 10. Santa Cruz, CA: ETR Associates, 1992.

Parker, H. The ADD Hyperactivity Handbook for Schools. Plantation, FL: Impact Publications, 1992.

Related Materials Available from NIH:

Attention Deficit Disorder Information Packet and "Know Your Brain Fact Sheet." Both are available from NIH Neurological Institute, P.O. Box 5801; Bethesda, MD 20824 (800) 352-9424. Learning Disabilities (NIH Pub. No. 93-3611) and "Plain Talk about Depression' (NIH Pub. No. 93-3561). These are available by contacting: NIMH, Room 7C-02, 5600 Fishers Lane, Rockville, MD 20857.

Support Groups and Organizations

Attention Deficit Information Network (Ad-IN) 475 Hillside Avenue Needham, MA 02194 (617) 455-9895

Provides up-to-date information on current research, regional meetings. Offers aid in finding solutions to practical problems faced by adults and children with an attention disorder.

ADD Warehouse 300 NW 70th Avenue Plantation, FL 33317 (800) 233-9273

Distributes books, tapes, videos, assessment on attention deficit hyperactivity disorders. A central location for ordering many of the books listed above. Call for catalog.

Center for Mental Health Services Office of Consumer, Family, and Public Information 5600 Fishers Lane, Room 15-105 Rockville, MD 20857 (301) 443-2792

This national center, a component of the U.S. Public Health Service, provides a range of information on mental health, treatment, and support services.

Children and Adults with Attention Deficit Disorders (CH.A.D.D.) 499 NW 70th Avenue, Suite 109 Plantation, FL 33317 (305) 587-3700

A major advocate and key information source for people dealing with attention disorders. Sponsors support groups and publishes two newsletters concerning attention disorders for parents and professionals.

Council for Exceptional Children 11920 Association Drive Reston, VA 22091 (703) 620-3660

Provides publications for educators. Can also provide referral to ERIC (Educational Resource Information Center) Clearinghouse for Handicapped and Gifted Children.

Federation of Families for Children's Mental Health 1021 Prince Street Alexandria, VA 22314 (703) 684-7710

Provides information, support, and referrals through federation chapters throughout the country. This national parent-run organization focuses on the needs of children with broad mental health problems.

HEATH Resource Center American Council on Education 1 Dupont Circle, Suite 800 Washington, DC 20036 (800) 544-3284

A national clearinghouse on post-high school education for people with disabilities.

Learning Disabilities Association of America 4156 Library Road Pittsburgh, PA 15234 (412) 341-8077

Provides information and referral to state chapters, parent resources, and local support groups. Publishes news briefs and a professional journal.

National Association of Private Schools for Exceptional Children 1522 K Street, NW, Suite 1032 Washington, DC 20005 (202) 408-3338

Provides referrals to private special education programs.

National Center for Learning Disabilities 99 Park Avenue, 6th Floor New York, NY 10016 (212) 687-7211

Provides referrals and resources. Publishes Their World magazine describing true stories on ways children and adults cope with LD.

National Clearinghouse for Alcohol and Drug Information P.O. Box 2345 Rockville, MD 20847 (800) 729-6686

Provides information on the risks of alcohol during pregnancy, and fetal alcohol syndrome.

National Information Center for Children and Youth with Disabilities (NICHCY) P.O. Box 1492 Washington, DC 20013 (800) 695-0285

Publishes free, fact-filled newsletters. Arranges workshops. Advises parents on the laws entitling children with disabilities to special education and other services.

Sibling Information Network A.J. Pappanikou Center 1776 Ellington Road South Windsor, CT 06074 (203) 648-1205

Publishes a newsletter for and about siblings of children with special needs.

Tourette Syndrome Association 42-40 Bell Boulevard Bayside, NY 11361 (718) 224-2999

State and local chapters provide national information, advocacy, research, and support.

SSRI

The SSRI's (Prozac, Paxil,and Zoloft) all act by blocking the reuptake of a chemical transmitter called **serotonin** into nerve cell endings. This keeps the concentration of serotonin higher. The net result of this is analagous to taking the static out of a static filled telephone system. Communication becomes easier and requires less effort.

The SSRI's may produce some agitation or headache, and may decrease appetite. Unlike the Tricyclic Antidepressants, which are usually given at bedtime or in multiple doses, the SSRI's are usually given in the morning. All antidepressants are usually given with food.

The SSRI's may take several weeks or more to start acting, as do the tricyclic antidepressants.

There is insufficient information at present to determine which specific SSRI is best for a specific individual, although it is clear that some people respond better to one than another.

Name	Dosage		half life
Prozac	10,20 mg capsule	Liquid form very expensive	84 hours
Zoloft	50,100 mg caplet	scored	26 hours
Paxil	20, 30 mg caplet	scored	21 hours

Atypical Antidepressants

Buproprion (Wellbutrin) has been effective in treating ADHD in some children who have not responded to other medications. It is important to monitor the dosage carefully, as there is an increased risk of seizure when more than 150 mg /dose or 450 mg/day are used in adults.

Monoamine Oxidase Inhibitors are rarely used to treat ADHD. They require a diet to control intake of tyramine which most children and many adults will not tolerate (who wants to give up pepperoni pizza?). Controlled studies have shown these medications to be beneficial, however, when other medications have been ineffective.

For additional information, see:

Spencer, Thomas, et. al., Pharmacotherapy of Attention-Deficit Hyperactivity Disorder across the Life Cycle, J.Am. Acad. Child Adolesc. Psychiatry, 35:4, April 1996