

**ATTENTION
DEFICIT
HYPERACTIVITY
DISORDER**

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CONCEPT...

- ▶ It also called hyperkinetic disorder.
- ▶ A neurological disorder.
- ▶ ADHD is marked by developmentally inappropriate inattention, impulsiveness, & in some cases, hyperactivity.
- ▶ Unless identified & treated properly, ADHD may progress to conduct disorder, academic & job failure, depression, relationship problems, & substance abuse.
- ▶ Most children with ADHD experience signs & symptoms by age 4. a few aren't diagnosed until they enter school.

EPIDEMIOLOGY

- ▶ A prevalence of 1.7% was found among primary school children.
- ▶ ADHD is four time more common in boys than in girls.

ETIOLOGY

Biological Influences

▶ *Biological Factors:*

- ✓ There is greater concordance in monozygotic than in dizygotic twins.
- ✓ Siblings of hyperactive children have about twice the risk of having the disorder as does the general population.
- ✓ Biological parents of children with the disorder have a higher incidence of ADHD than do adoptive parents.

Biochemical theory

- ▶ A deficit of dopamine & norepinephrine has been attributed in the over activity seen in ADHD. This deficit of neurotransmitters is believed to lower the threshold for stimuli input.

Pre, peri & postnatal factors:

- ▶ Prenatal toxic exposure, prenatal mechanical insult to the fetal nervous system.
- ▶ Prematurity, fetal distress, precipitated or prolonged labor, Perinatal asphyxia & low Apgar scores.
- ▶ Postnatal infections, CNS abnormalities resulting from trauma, etc.

Environmental influences

- ▶ Environmental lead
- ▶ Food additives, coloring preservatives & sugar level also been suggested as possible causes of hyperactive behavior but there is no definite evidence

Psychosocial Factors:

- ▶ Prolonged emotional deprivation
- ▶ Stress psychic events.
- ▶ Disruption of family equilibrium.

Risk factors for ADHD:

- ▶ Drug exposure in utero
- ▶ Birth complications
- ▶ Low birth weight
- ▶ Lead poisoning

SIGN & SYMPTOMS

- ▶ Signs & symptoms of ADHD fall into three categories:
 - ❑ Inattention
 - ❑ Impulsiveness
 - ❑ Hyperactivity

Commonly, these behaviors intensify when the child is bored, in an unstructured situation, or required to concentrate or focus on a task for an extended period.

Inattention...

- ▶ Children with ADHD have a short attention span, don't seem to listen, & have a hard time keeping their minds on any one things.
- ▶ They get bored easily, tiring of tasks after just a few minutes.
- ▶ Children with ADHD may give effortless attention to the things they enjoy, they have difficulty focusing deliberate, conscious attention on organizing & completing a task or learning something new. Inattention causes them to lose things, be forgetful, & make careless mistakes.
- ▶ Children with ADHD don't follow through on instruction, fails to finish tasks, & have trouble organizing tasks. Easily distracted, they're reluctant to engage in tasks that call for sustained mental effort

Impulsiveness...

- ▶ Children with ADHD have trouble curbing their immediate reactions. They act before they think. They interrupt others – for instance, blurting out inappropriate remarks or answering a question before the person has finished asking it.
- ▶ Waiting their turn & waiting for things they want are also challenging for these children. When upset, they may grab another child's toy or strike out physically.

Hyperactivity...

- ▶ Children with ADHD are always in motion & can't seem to sit still. They try to do several things at once.
- ▶ In school, they fidget or squirm in their seat, roam around the room, or talk excessively. They have trouble engaging in quiet activities & may find it impossible to sit through a class. Some tap their pencils incessantly, wiggle their feet, or touch everything.

DIAGNOSIS

- ▶ Complete medical evaluation, with emphasis on a neurologic examination, hearing & vision.
- ▶ A psychiatric evaluation to assess intellectual ability, academic achievement, & potential learning disorder problem
- ▶ Detailed prenatal history & early developmental history
- ▶ Direct observation, teacher's school report (often the most reliable), parent's report

TREATMENT

Pharmacotherapy

- ▶ CNS stimulants: Dextroamphetamine, methylphenidate, pemoline
- ▶ Tricyclic antidepressants.
- ▶ Antipsychotics
- ▶ SSRIs
- ▶ Clonidine

Psychological therapies

- ▶ Behavior modification techniques
- ▶ Cognitive behavior therapy
- ▶ Social skills training
- ▶ Family education.

NURSING INTERVENTION

- ▶ Develop a trusting relationship with the child. Convey acceptance of the child, separate from the unacceptable behavior.
- ▶ Ensure that patient has a safe environment. Remove objects from immediate area in which patient could injure self due to random hyperactive movements. Identify deliberate behaviors that put the child at risk for injury. Institute consequence for repetition of this behavior. Provide supervision for potentially dangerous situations.
- ▶ Since there is non-compliance with task expectations, provide an environment that is as free of distractions as possible.

Count...

- ▶ Ensure the child's attention by calling his name & establishing eye contact, before giving instructions.
- ▶ Ask the patient to repeat instructions before beginning a task.
- ▶ Establish goals that allow patient to complete a part of the task, rewarding each step completion with a break for physical activity.
- ▶ Provide assistance on a one-to-one basis, beginning with simple concrete instructions.
- ▶ Gradually decrease the amount of assistance given to task performance, while assuring the patient that assistance is still available if demand necessary.

Count...

- ▶ Offer reorganization for successful attempt & positive reinforcement for attempt made. Give immediate positive feedback for acceptance behavior.
- ▶ Provide quiet environment, self-contained classroom, & small group activities. Avoid over stimulating places such as cinema halls, bus stop & other crowded places.
- ▶ Help him learn how to take his turn, wait in line & follow rules.
- ▶ Assess parenting skills level, considering intellectual, emotional & physical strengths & limitations. Be sensitive to their needs as there is often exhaustion of parental resources due to prolonged coping with a disruptive child.

Count...

- ▶ Provide information & materials related to the child's disorder & effective parenting techniques. Give instructional materials in written & verbal form with step-by-step explanations.
- ▶ Explain & demonstrate positive parenting techniques to parents or caregivers, such as time-in for good behavior, or being vigilant in identifying the child's behavior & responding positively to that behavior.
- ▶ Educate child & family on the use of psychostimulants & anticipated behavioral response.
- ▶ Co-ordinate overall treatment plan with schools, collateral personnel, the child & the family.

**THANK
YOU**