

Lesson 7

Emotional and Behavior Difficulties ADHD, Visual Impairment, Physical Impairment

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It is vital for teachers to understand EBD & ADHD so you don't feel frustrated, upset, or defeated.



EBD refers to those students who present with disturbing and/or disruptive behaviour that interferes with their own and others' social functioning and academic engagement.

Their behaviour may be termed '*acting-out*' (*disruptive*) or '*acting-in*' (*showing withdrawal and/or avoidance*).

EBD include:

- difficulties in sustaining attention
- serious and persistent impulsiveness
- verbal and/or physical aggression towards other people
- violent and destructive behavior
- oppositonality and unco-operativeness
- extreme fearfulness
- avoidant behaviour
- withdrawn behaviour
- feelings of low self-worth and hopelessness

Students with EBD may:

- have low self-esteem and often become victims of bullies
- become bullies themselves
- be aggressive and disruptive
- find it difficult to conform to classroom rules and routines
- be excessively attention-seeking through negative behaviour
- sometimes have school phobia

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Cause:

EBD occurs because scholars have summarized as:

- **Internal factors and External factors** (Coleman, 1996)
- Children who experience family difficulties, including parental conflict, separation, neglect, indifference or erratic discipline, are more likely to develop EBD.

Internal factors

1) Physiological factors:

Such as brain injury, genetic, brain function disorders.

2) Psychological factors:

Such as low self-esteem, mental disorders, weak moral sense.

3) Intellectual factors:

Such as low intelligence, reading, learning difficulties or other low capacity weak and so on.

External factors

1) Social-economic factors:

Such as poverty, social class, race, gender.

2) Family factors:

History of physical, sexual abuse, poor parenting, brothers and sisters of battle and so on.

3) School factors:

Such as academic advancement, intellectual-oriented teaching and discipline improper, inadequate education, environment, etc.

4) Social and cultural factors:

Summarized as follows culture, television, film, advertising, news media reports or demonstrations bad, or improper entertainment, etc.

Physical and mental characteristics of EBD

- **Dishonest**: as lying, cheating, stealing, exam cheating and so on.
- **Lazy**: the behavior may be due to lack of motivation, self-concept is not sound or attitude toward the environment properly, and do not want to do what he should do and can do.
- **Withdrawal**: do not like to talk with others or avoid opportunities to interact with others, retreat back to their own circle, to Mei lack the necessary relationships.

Physical and mental characteristics of EBD

- **Fatigue:** the spirit of the poor, lack of energy, but there is no physiological reason
- **Absent:** the problem is the absence of symptoms. Frequent truancy or running away from home is often the absence of a precursor, and often with many truancy and running away bad habits, even criminal behavior

Physical and mental characteristics of EBD

→ No respect for authority:

Contempt for authority and rules, that children often feel unjust authority or laws and regulations, he is not understood or accepted, and he is the only way to resist authority.

→ Concentration difficulties:

Often present distraction, short attention span, impulsive, or overactive, can not exercise self-restraint, in order to learn, interpersonal or work by adverse effects.



Physical and mental characteristics of EBD

→ **Social difficulties:**

Can not get along with peers and even to make friends. This situation usually two ways:

- (A) often become the object of bullying, not contacts with other children, at home or dormant, like independently seek pleasure; or grew up in camouflage, designed together with their parents or other adults play.
- (B) at home, with brothers and sisters do not harmony with their parents often quarrel; in school, maybe defiant, hostile to authority, or narcissistic, refused to participate in any group activities

Physical and mental characteristics of EBD

→ Emotional immaturity:

The child's physical development in many ways are the same with the general children, or even exceed it, but significantly behind the emotional development, they have more childish emotional response, that is, the behavior like the earlier stage of development, such as crying, easily frustrated, and get angry easily.



Physical and mental characteristics of EBD

➤ 9) **Learning difficulties:**

Emotional distress are often difficult to learn.

For example, can not concentrate attention, mind wandering, or not interested in any learning activities, led to difficulties in reading and writing and communication, and because of a lack of curiosity and motivation, not arouse the interest of learning any of the matters that greatly hinder the psychological function, can not engage in any creative activity.

Conclusion



- A diagnosis represents a “best guess” based on a child’s behaviors that he or she has a special needs and not just a problem that all children might have from time to time.
- Research on the cause of emotional disorders has shown that the way the brain receives and processes information is different for some children with EBD than for those who do not have those problems. However, this is not true for all children with emotional disorders.
- Interviews with the child, parents or other family members remain one of the most important sources of information to help professionals arrive at a diagnosis.

Helping Students with Attention Deficit and Hyperactivity Disorder (ADHD)

AD/HD

Difficulties and Issues ...



**How much do you know about
AD/HD?**

In simple terms , they are ...

**Those who are overly energetic,
overly excitable, and kind of the
un-stoppable and all-over-the-
places**



Very absent-minded and always forgetting and losing things, trivial or important



Subtypes of AD/HD

- 1. 注意力不足型** (Mainly inattentive)
- 2. 過度活躍、衝動型** (Mainly hyperactive-impulsive)
- 3. 混合型** (Combination)

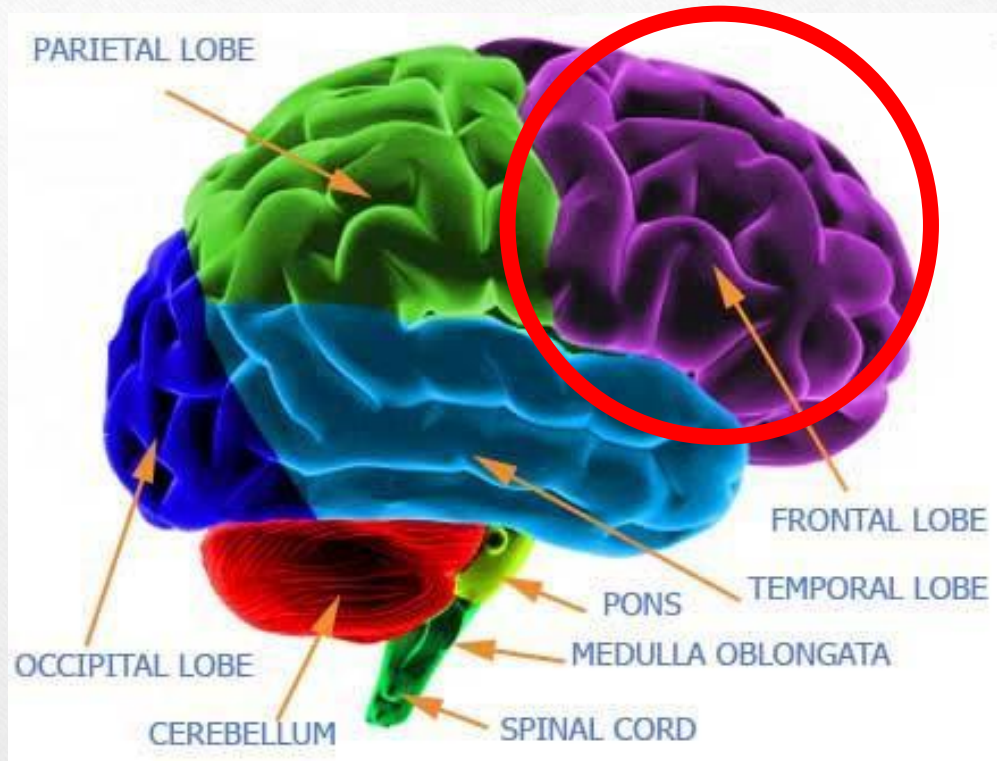
3 Main Behavioral Features of AD/HD

• **Inattention**

• **Hyperactivity**

• **Impulsivity**

Cause of AD/HD



Possibly due to a lower level of *dopamine* in the *frontal* cortex of the brain

Here's something you might want to know about yourself but were always afraid to ask?



How AD/HD am I?

Impairment in:

FOCUS

FOCUS

FOCUS

attention



Impairment in:



Sustained Attention

Difficulty in continual shifting attention back and forth:



Focusing → Shift → Refocusing

Difficulty in:

**Inhibiting action
according to
situational demand**



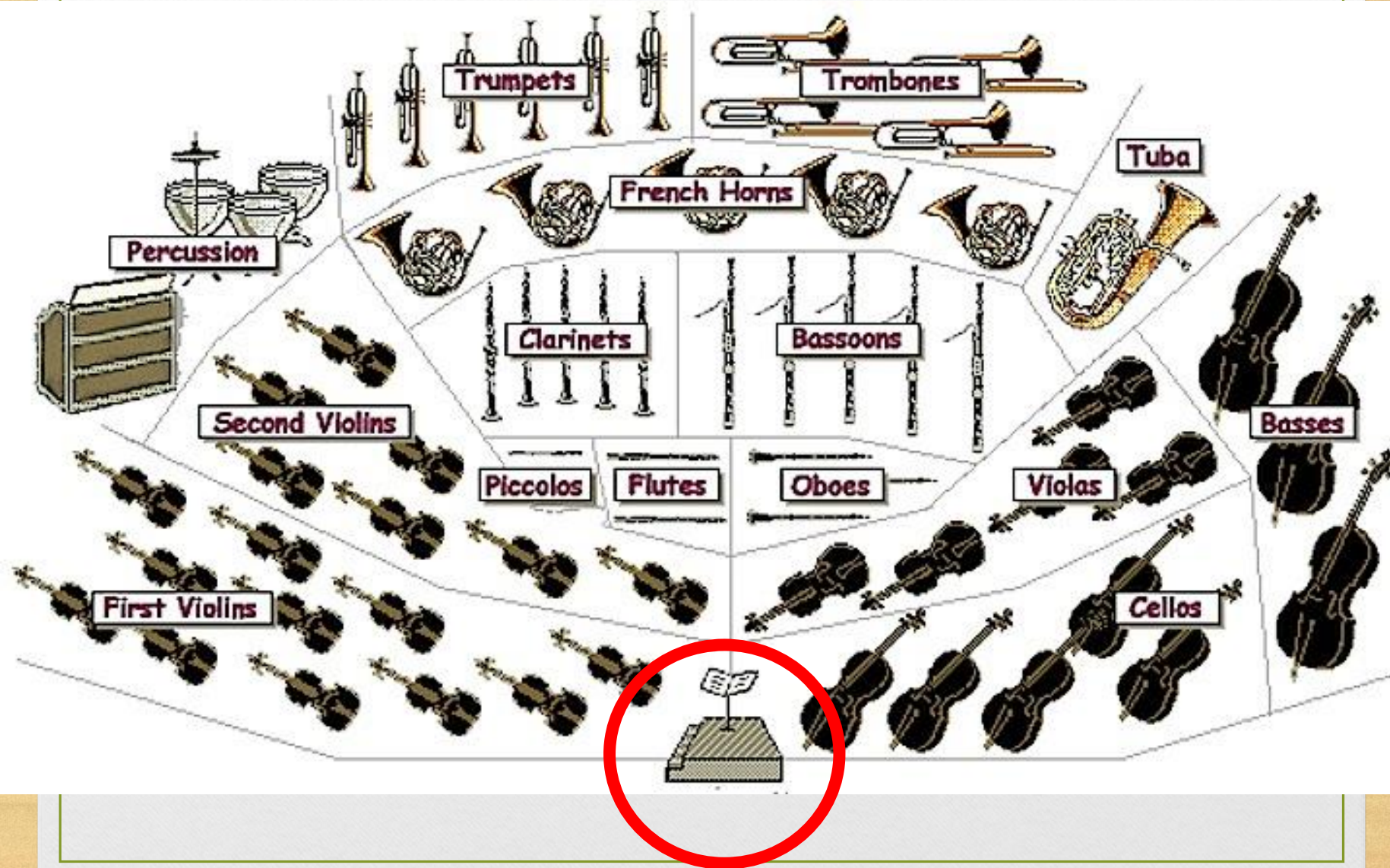
Weak Executive Function

- EF is the ability to control and manage different tasks in order to reach a goal
- It includes planning, execution, control, inhibition and monitoring

Examples

- Impulsive
- Enjoys repetitions/routines
- Easily anxious
- Easily distracted





Impairment in Executive Functions



Child with Attention Deficit Disorder (ADD)

has a combination of at least **6** symptoms of **inattention**:

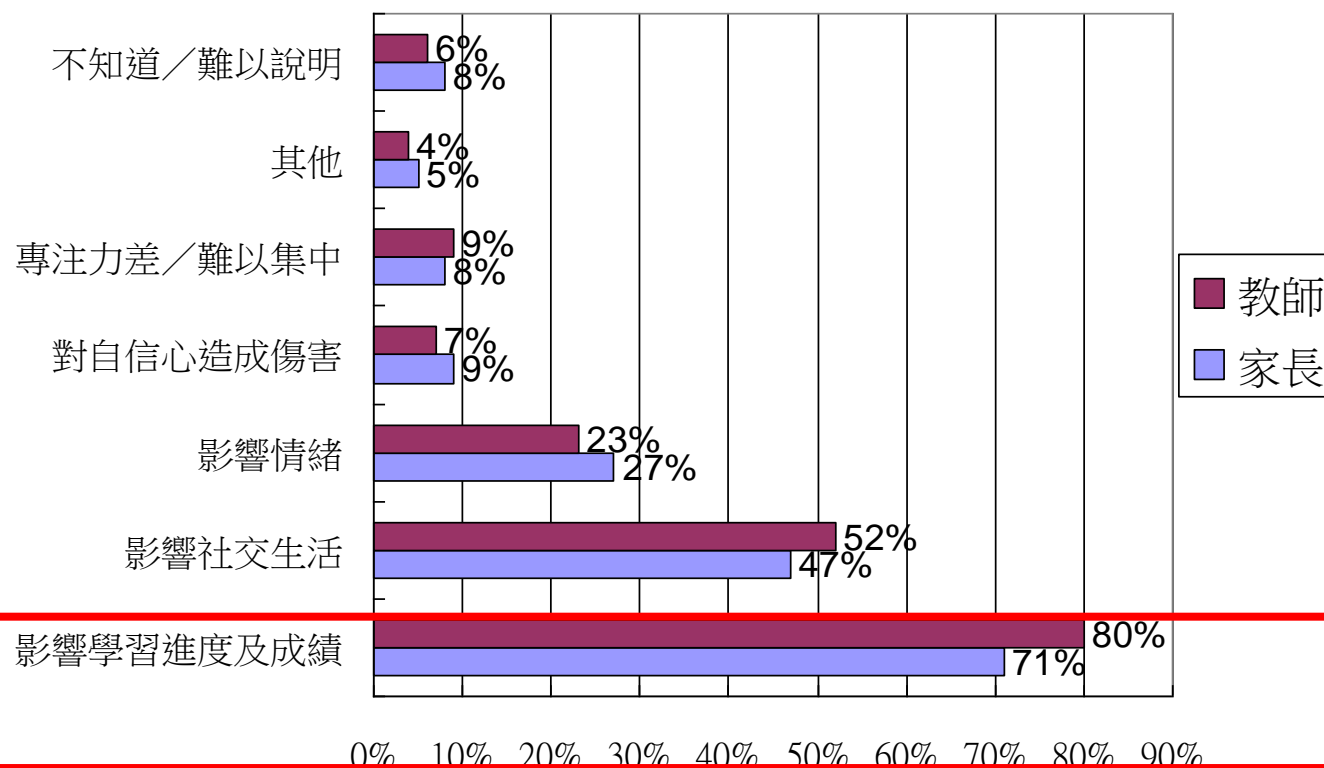
- ☐ Forgetfulness
- ☐ Often losing objects
- ☐ Reluctance to do difficult work
- ☐ Making careless errors
- ☐ Difficulty sustaining attention
- ☐ Difficulty organizing
- ☐ Easily distractible



ADD/ADHD students have difficulties in :

- ❑ Self-regulating behavior and making **plans**
- ❑ Keeping track of **time** and finishing work on time
- ❑ Keeping track of **more than one thing at once**
- ❑ Meaningfully including **past knowledge** in discussions
- ❑ **Evaluating ideas** and reflecting on their work
- ❑ **Switching from thoughts**, e.g. making mid-course corrections while thinking, reading, and writing
- ❑ Asking for help or seeking **more information** when they need it
- ❑ **Waiting to speak** until their turn

How bad is the effect of AD/HD or ADD on students learning ?



專注不足／過度活躍症（香港）協會的調查結果發布會, 2009



*What are the Issues?
How to help?*



Scenario 1

Jonathan (fictional character)

- ◆ F.2 student
- ◆ has difficulty sitting still in class.
- ◆ always plays with his pencils and erasers during class
- ◆ often blurt out answers before the teacher finishes a question.
- ◆ when teachers stops him, he feels hurt and told his parents that teachers are mean.
- ◆ plays rough and loves cutting in line and interrupting others.
- ◆ In several occasions, he bumped into his classmates and knocked one of his classmates on the ground.



Scenario 2

◆ Ben

- ◆ P.4 student, a repeater.
- ◆ daydreams a lot in class and make many careless mistakes in his homework and tests.
- ◆ his locker, desk and school bag are always messy.
- ◆ Since the beginning of the school term, he has only submitted 1 or 2 homework assignments.
- ◆ when asked to see you in recess breaks, he would sometimes forget to show up.



Scenario 3



- ◆ **Pete**
- ◆ MS1 student
- ◆ is very talkative and would often bend over to talk to the neighboring classmates sitting around him.
- ◆ would even go off his seat to borrow things from a classmate.
- ◆ often late with homework submission especially with English composition.
- ◆ hates writing and reading but appears to be a very bright student but his exam scores are generally below the class average.
- ◆ enjoys socializing and sports
- ◆ spends most of his recess time on the basketball courts.

Misunderstanding of ADHD

- Lack of discipline
- Just "LABEL"
- A kind of behavioral problem
- It will be get better when the child getting older



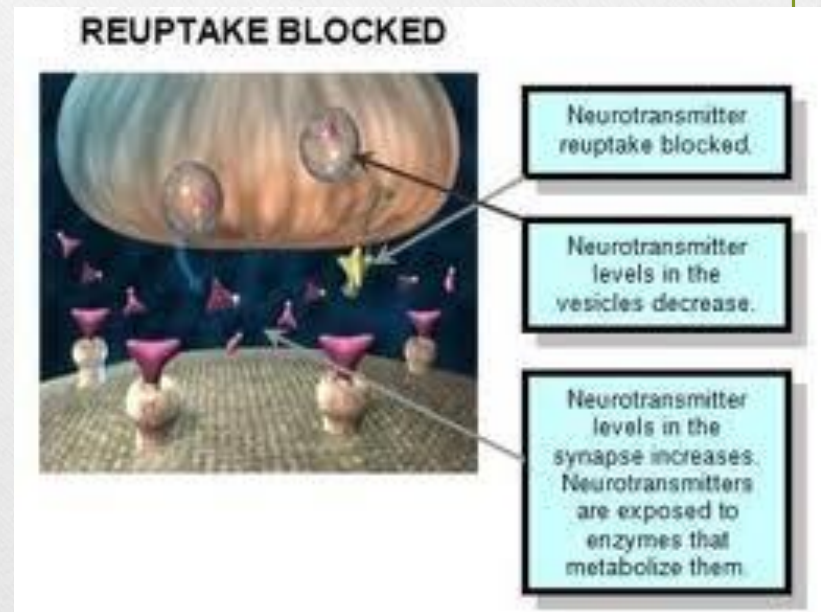
Medication: Stimulants

- Most well-researched, effective, and commonly used medication treatment for ADHD.
 - Methylphenidate (Ritalin, Concerta, and Metadate)
 - Dextroamphetamine (Adderall)

- These medications reduce ADHD symptoms by:

- Blocking the reuptake of norepinephrine (NOR) and dopamine (DOP) and facilitating their release

→ Enhances NOR and DOP availability in certain brain regions: PFC and basal ganglia



Stimulant Medications

- Research has shown that stimulants:
 - Are highly effective in reducing ADHD symptoms in the short term
 - Decrease disruption in the classroom
 - Increase academic productivity and on-task behavior
 - Improve teacher ratings of behavior
- Different formulations work best for different children
- Common side effects: insomnia, decreased appetite
- Strattera (atomoxetine)
 - A non-stimulant alternative that works well for some children
 - Has not been studied as long or as intensively as the stimulants
 - Smaller effect size relative to the stimulants

Limitations of Stimulant Treatment

- Individual differences in response
 - Not all children respond (approximately 80%)
- Limited impact on domains of functional impairment
 - Primary reason for treatment seeking
- Does not normalize behavior
- Family problems beyond the scope of medication
- No long-term effects established
- Long-term use rare
- Limited parent/teacher satisfaction
- Some families are not willing to try medication

Physical Impairment

Classifications

- Neurological disorders [腦部/ 神經肌肉系統毛病]
 - Cerebral palsy [腦麻痺]
 - Spina bifida [脊柱裂]
 - Spinal cord injury [脊髓損傷]
- Musculoskeletal disorders [肢體殘缺/ 骨骼異常]
 - Muscular dystrophy [肌肉萎縮症]
 - Juvenile rheumatoid arthritis [幼年類風濕關節炎]
 - Lost of limbs

Characteristics

Cerebral Palsy

腦麻痺

Cerebral palsy (C.P.)

Definition

- “paralysis of the brain”
- A group of conditions involving muscle control, posture, and movement that is not progressive.
- *Problem lies in brain’s ability to tell muscles what to do (Bigge, Best, & Hellerm 2002)*

Cerebral Palsy

A

Partial involvement



Hemiplegia



Diplegia
Spastic



Quadriplegia

Total body involvement



Athetoid



Dystonic

Dyskinetic



Ataxic

半身痙攣

下肢痙攣

四肢痙攣

<http://www.cerebralpalsysymptoms.org/types-of-cp/classification-of-cerebral-palsy/>

Prevalence rate of C.P. in HK

Table 1. Number of children in special needs and mainstream schools

School	Children with cerebral palsy No. (%)	All children No. (%)
Special needs schools	359 (62)	2897 (1)
Mainstream schools	219 (38)	432 675 (99)
Total	578 (100)	435 572 (100)

The overall point prevalence rate was
1.3 per 1000 children
(children with CP aged between 6 and 12 years)

1. Classification of children with cerebral palsy

	Children with cerebral palsy in special needs schools, n=359 No. (%)	Children with cerebral palsy in mainstream schools, n=219 No. (%)
Spastic	237 (66)	192 (88)
Hemiplegia	29 (12)	103 (54)
Diplegia	78 (33)	78 (41)
Triplegia	10 (4)	6 (3)
Quadriplegia	107 (45)	2 (1)
Unclassified or others	13 (5)	3 (2)
Dyskinetic	33 (9)	5 (2)
Ataxic	15 (4)	5 (2)
Mixed	14 (4)	5 (2)
Unclassified or others	60 (17)	12 (5)

Prevalence rate of C.P. in HK

Table 2. Age distribution of children with cerebral palsy and age-specific prevalence rates

Age (years)	No. of children with cerebral palsy		Total No. of children	Prevalence rate per 1000 children
	Special needs schools	Mainstream schools		
6.0-6.9	36	34	67 237	1.04
7.0-7.9	49	57	73 223	1.45
8.0-8.9	62	54	77 318	1.50
9.0-9.9	78	33	77 916	1.42
10.0-10.9	72	25	79 007	1.23
11.0-12.0	62	16	60 871	1.28
Total	359	219	435 572	1.33

How does Cerebral Palsy affect children?

Motor deficits of children with CP often include:

- Delayed motor milestones
- Persistent primitive reflexes
- Spasticity (rigid baby) or hypotonia (floppy baby)
- Abnormal walking pattern and movement
- Early hand dominance



Comorbidities

Vision	Refractive error, such as myopia, Strabismus, Amblyopia
Hearing	Hearing impairment of different grades
Language	Difficulty in expression, comprehension and pronunciation
Senses	Abnormal responses to sensory stimuli, e.g. fear of being touched or fear of movements
Physical Health	Common problems such as epilepsy or difficulty in swallowing
Intelligence	Different grades of mental retardation
Attention	Weaker attention

Cerebral Palsy

Ellen, a bright young woman who has cerebral palsy, demonstrating her use of assertive technology at this address

- <http://www.youtube.com/watch?v=fAdEOXD9Tvk>
Video of C. P.

Characteristics

Spina Bifida

脊柱裂

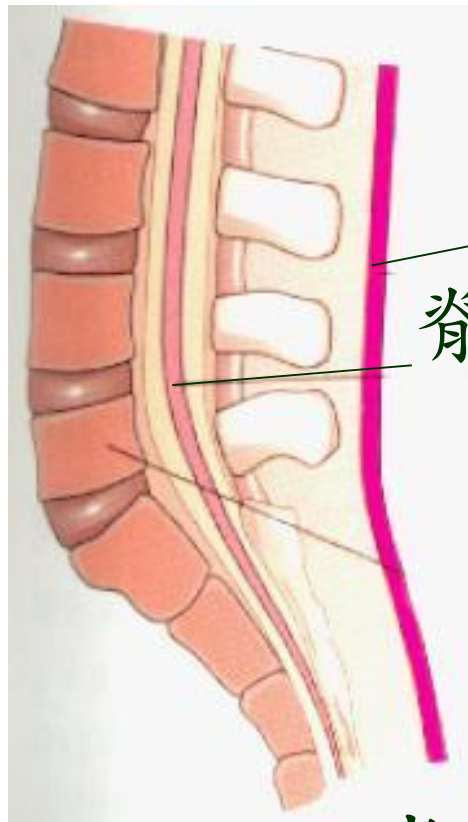
What is Spina Bifida



脊柱裂伴
脊髓脊膜膨出

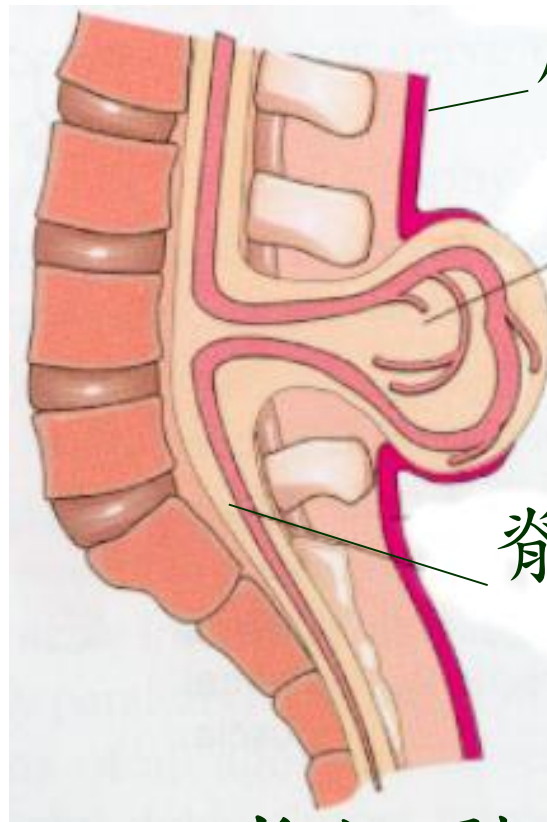


脊柱裂伴
脊髓裂



皮膚
脊髓

正常



皮膚

脊髓

脊柱裂

Prevalence rate of Spina Bifida

- US: 0.07% (7 out of 10,000 birth; Spina Bifida Association, 2009)
- HK: 0.05% (1 out of 2,000 birth; 香港兒童脊柱裂互勵會, 2006)

Problems associated with Spina Bifida

- Hydrocephalus 腦積水
- Full or partial paralysis 癱瘓
- Bladder and bowel control difficulties 大小便控制困難
- Learning disabilities
- Depression
- Latex allergy 乳膠過敏
- Social and sexual issues

Spina Bifida

- Video
- <http://www.youtube.com/watch?v=mH8aW2mhdNs&feature=related>

Characteristics

Muscular Dystrophy

肌肉萎縮症



Muscular dystrophy

- A group of genetic disability 遺傳障礙
- Incorrect or missing information in their genes, which prevents them from making the proteins they need for healthy muscles
- Progressive
 - Situation deteriorates 惡化

Prevalence rates of Muscular Dystrophy

- US: 1 in 3,500 to 5,000
- HK: totally around 10,000

Types of Muscular Dystrophy

- Duchenne muscular dystrophy [杜興氏肌肉營養不良症]
- Motor neuron disease [運動神經細胞疾病]
- Spinal muscular atrophy [脊髓肌肉萎縮症]
- Multiple sclerosis [多發性硬化症]
- Spinocerebellar ataxia [小腦萎縮症]

Duchenne muscular dystrophy

[杜興氏肌肉營養不良症]

- Most common type of childhood muscular dystrophy
- Lacking the protein dystrophin
- Occur between 2 and 6
- Only found in males

Duchenne muscular dystrophy

○ Symptoms

- Frequent falling
- Difficulty getting up from a sitting or lying position
- Waddling gait 搖擺而行
- Enlargement of the calf 小腿脹大

○ Other associated problems

- Scoliosis 脊椎側彎
- Obesity 肥胖
- Relatively low IQ

Duchenne muscular dystrophy

- Lose ability to walk by age 12
- Wheelchair- or even bed-bounded
- Breathing problems at the later stage
- Usually die at or before early 20s

Muscular dystrophy

- Video
- <http://evideo.lib.hku.hk/play.php?vid=4418497>
- 6:18 – 7:45

Common Characteristics of PH students

Characteristics of individuals with PH

- Cognitive Characteristics
 - Extraordinary giftedness and to significant intellectual disability
- Social characteristics
 - Social integration problems
 - 40 of spina bifida teenagers have no friends outside school or college. (Dorner, 1976)
 - 10% of disabled children do appear to be almost entirely without fiends, even at school. (Madge & Fassam, 1982)
- Lack of opportunities to get on with other people
 - → Loneliness,
 - → Social skills deficits,
 - → Low self-esteem

Characteristics of individuals with PH

- Emotional Characteristics
 - Poor self-esteem;
 - Experience anger at their situations;
 - Rejection of the support offered by family, friends, and educators;
 - Poor images of themselves as valuable people

(Antle,2004; Sze & Valentin,2007; Turkstra, Williams, Tonks, & Frampton,2008)

Conductive education

- <http://www.youtube.com/watch?v=TQiU6YI6-1Y&feature=related>

(18 sec – 3 min 16 sec)

Conductive education

Fundamental concepts

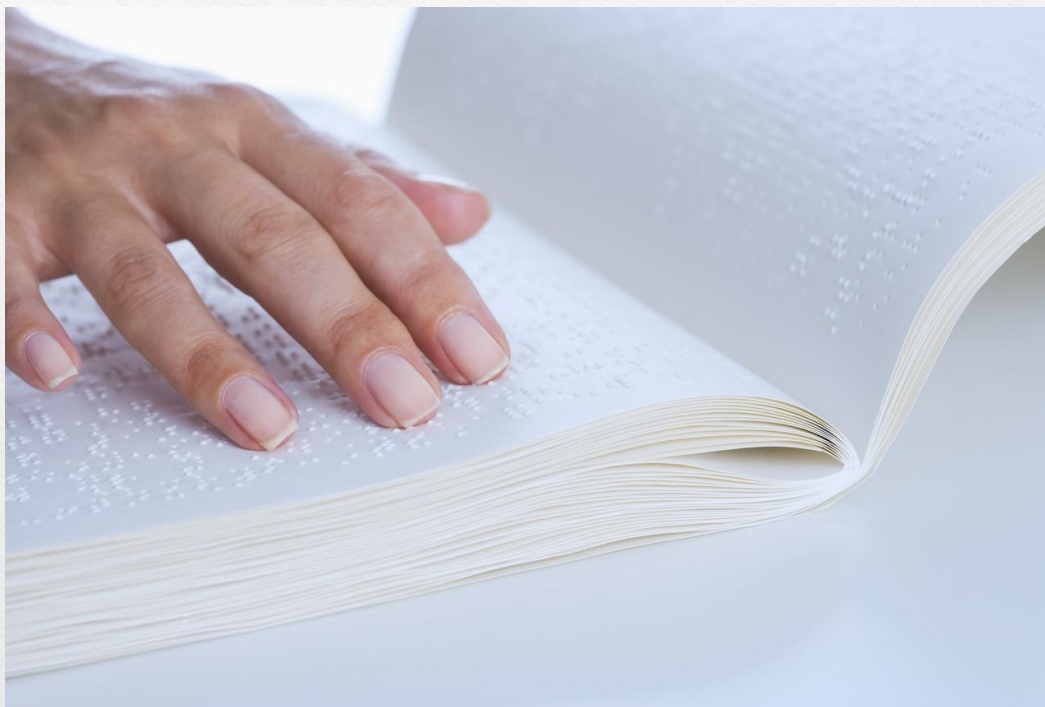
- Body movement and thinking are inseparable
- Seeing the child as a whole person, not just the medical problem
- Everyone can learn
- Worst outcome of PH is not physical, but mental limitations
- An educational approach NOT medical approach
- → What is required is not only treatment, but also special education

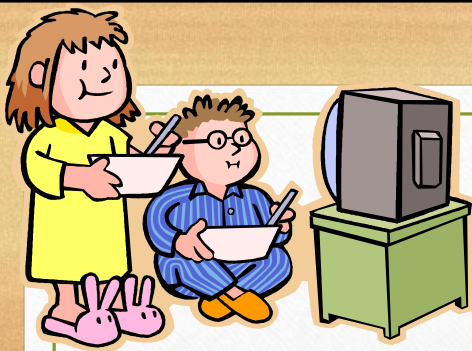
Conductive education

Aim

- Gaining independence
- Development a holistic personality
- Increase self esteem and motivation
- Provide opportunities to establish integral concepts instead of fragmented knowledge

Helping students with Visual Impairment





True or False

- Do children with visual impairment like watching TV?
Why/ Why not?
- Can we glare at the visual impaired?
- Should we protect them all the time?
- The learning abilities of visually impaired students, are in general much the same as those of their peers?

視覺功能評估

1. 屈光不正 (Refractive Error)
2. 視力 (Visual Acuity)
3. 視野 (Visual Field)
4. 色覺 (Color Vision)
5. 對比度 (Contrast Sensitivity)
6. 眼睛健康 (Ocular Health)



What is visual impairment ?

- Students with visual impairment include those with the following impairment that hinders their learning.

What's it like to be visually impaired?

1. Low vision
 - varies in degree from mild, moderate, to severe
2. Totally blind

Living in The Dark

Mild (visual acuity within 6/18-6/60)

- ✓可以閱讀較大的字體
- ✓辨認形狀、顏色和接收光線沒有問題

Moderate (visual acuity within 6/60-6/120)

- ✓可以察覺物體的形狀、顏色和分辨光暗
- ✓要把字寫得大一點，筆畫粗一點才可以看見

Severe (visual acuity within 6/120 or worse)

- ✓只能分辨較明顯的光暗變化
- ✗可能完全看不見(全失明)

正常



輕度



中度



嚴重



Learning Characteristics of Students with Visual Impairment

The learning abilities of visually impaired students, including listening, tactility, communication, memory, analytical power and logical reasoning, etc. are in general much the same as those of their peers. For instance, they can acquire concepts like shapes and spatial concepts, but learn in a different way.

These students will adopt appropriate methods, approaches and media to help them in learning.

- braille (點字法) books
- audio tapes
- magnifiers (放大鏡)
- computers and other aids
- telescopes



Learning Characteristics of Students with Visual Impairment

- Get tired easily
 - because greater concentrate is needed in comprehending instructions or reading braille in lessons.
- Reluctant to ask for help
 - may have psychological obstacles
 - Teachers and classmates should understand their needs and consult them before offering help.

Communication

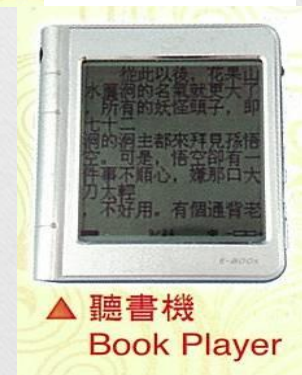
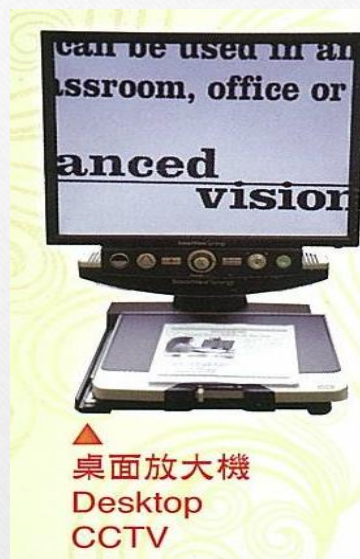
- Mutual respect
- Fairness
- Give suggestions
- Provide assistance
- Teachers should speak in the following ways:
 - a normal tone
 - call their names to start a conversation
 - let them know when you want to leave / end up the conversation



Assistance for learning



▲ 電腦屏幕放大軟件
Computer
Magnification Software



Conclusion:

- In academic assessment, the standard expected of students with visual impairment should in general be the same as that of other students.
- The arrangements of the assessment, such as examination papers, time allocation, use of aids, etc., should, however, be adjusted to accommodate their special needs.

