

**Extract from the Booklet for Identification of Persons with  
Disabilities (2002), Ministry of Social Justice &  
Empowerment, Government of India**



## LOCOMOTOR DISABILITY

When a person's movement is affected he/she had locomotor disability. This can be due to disease, injury or deformities in the joints, bones or muscles or injury/disease to the nerves, spinal cord or brain or deformities at birth.



**Paralysis** is the loss of power in any part of the body. This can be due to stroke, injury to the brain, spinal cord or nerves. Weakness can also be due to disease of the muscle.

**Locomotor disability** is observed in polio, leprosy, stroke, amputation, congenital deformities, cerebral palsy and injury to brain and spinal cord.

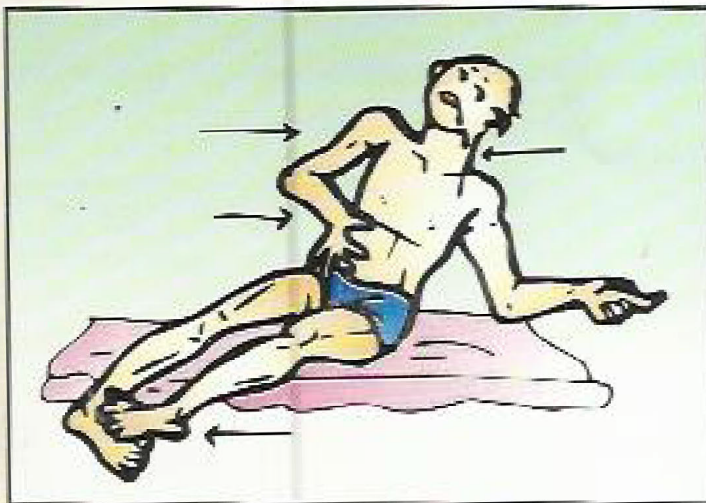
**Polio** is a viral infection in children which affects the spinal cord. A person with after effects of polio has weak, thin and shortened limbs. One or more limbs can be affected. They may develop deformities of the limbs and spine.



**Leprosy** is a disease which affects skin and nerves. This may result in loss of sensation and paralysis of hands and feet. The early symptom can be a skin patch with loss of sensation. In later stages there can be tingling and numbness or loss of sensation in hands and feet, weakness and deformities in limbs, thickened nerves, thick ear lobes, painless ulcers in feet, loss of eyebrows and flattened nose bridge.



**Stroke** is the sudden loss of power (paralysis) of one side of the body where upper and lower limbs of that side are affected. There may be paralysis of one half of face alongwith speech defects. Persons with stroke may have weakness in the affected area. If unattended, muscle bulk is reduced and there may be deformities.



**Cerebral palsy** is the term used to describe a group of conditions characterized by various degrees of paralysis occurring in infancy or early childhood. The condition manifests itself in many ways. Writhing involuntary movements may be the predominant feature. These involuntary movements often disappear during sleep and may be controlled. The paralysis varies

tremendously. It may involve the limbs on one side of the body (hemiplegia), both lower limbs (paraplegia) or all four limbs (tetraplegia). Mental subnormality is not uncommon.

## CONGENITAL DEFORMITY

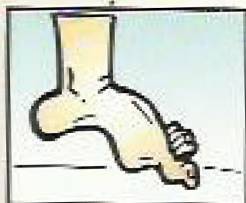


1. Deformed spine  
Hunch back



2. Absence of limbs  
Missing limbs

### 3. Crooked feet and other deformities of the feet



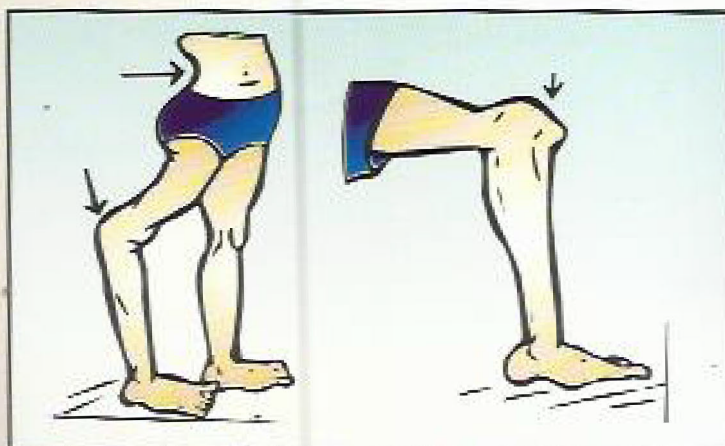
Crooked foot



Foot bending-out at ankle



Foot bending-in at ankle



4. Knee deformities  
Sway back  
Back knee  
Partly-dislocated knee

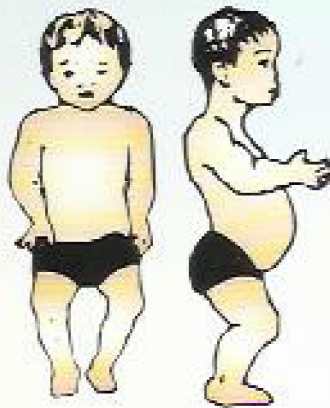


## THREE TYPES OF DWARFISM

Normal



Limbs short  
for trunk



Trunk short  
for limbs

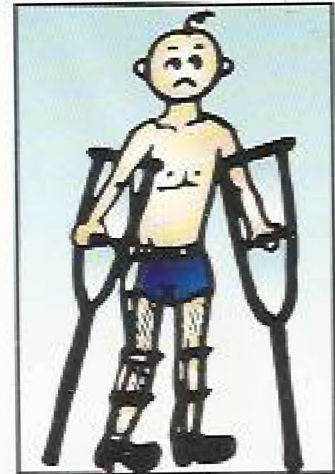


Normal proportions.,  
very small size.



### Paraplegia

Loss of movement and/or sensation in both the legs and partial or complete loss of bladder (urine) and bowel (stool) control.



### Quadriplegia

Loss of movement and/or sensations of all the four limbs and trunk, along with loss of urine and stool control. Quadriplegia is caused by injury or disease to the spinal cord at neck-level.

### Amputation

Amputation is loss of a part or whole of a limb. This can be present since birth or removed surgically due to a disease or injury or accidents.





## HEARING DISABILITIES

Hearing disabilities is inability of a individual to hear speech and environmental sounds. This may be due to improper development, damage or disease to any part of the hearing mechanism.



Hearing is a prerequisite for the development of normal speech. A child in early years learns to speak by hearing the speech of others in the family and surroundings.

Child with normal hearing in the younger ages is startled by a loud sound (source not to be seen.)



Normal hearing children may show an eye blink or may start crying or may stop crying upon hearing moderately loud / loud sounds.



A child with a normal hearing starts using one or two meaningful words by the age of one year.

Deafness is an invisible disability. Keen observation is necessary in order to identify a deaf child / individual.



Deafness from birth or early childhood has disastrous effects on child's overall development. These effects vary depending upon the age of onset, nature and degree of hearing impairment

A Child born with deafness fails to develop normal speech and language. He may use gestures for communication. (He is wrongly referred to as a dumb child in the society)

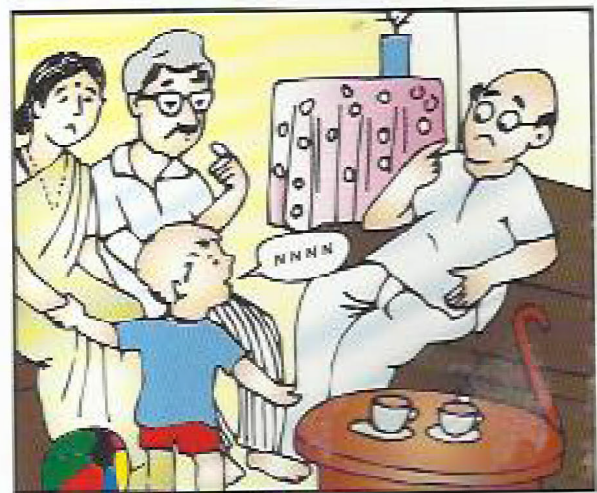






Some children are partially deaf. A person with partial deafness may fail to understand your speech and may ask for repetitions.

A Child with deafness may have unclear / less intelligible speech. They may speak with abnormal voice.



A person with persistent ear discharge (pus / blood stained) may develop conductive deafness. Conductive deafness can be treated by medicine or surgery.





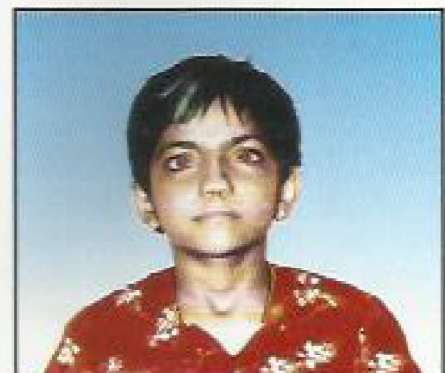
Children born with deafness have to be fitted with a hearing aid and trained to hear the sounds and the speech.

Some children with hearing disability also have other complications like small external ears with ear canal closed, slanted eyes along with moderate hearing loss.



Children with cleft lip and / or palate also usually have moderate conductive deafness.

Some children with deafness may have white patch of hair just above the forehead and blue eyes.





## SPEECH AND LANGUAGE DISABILITIES

A person has speech disability if his / her speech is not understood by the listeners.

Speech can be unintelligible and may not be understood by the listener due to

- a) Severe articulation disorder
- b) Severe voice disorder
- c) Severe stuttering
- d) Delay in development of speech and language and
- e) Language Disorders

### **Voice Disorders:**

Our voice is produced by the vocal cord in the larynx (voice box). Abuse, misuse structural abnormalities such as growth on the vocal cords and paralysis may result in an abnormal voice. It may be, hoarse or harsh so as to make speech incomprehensible. Sometimes the larynx has to be removed by operation because of cancer of the voice box. Such a person will have an opening in the neck which connects to his windpipe. He will be unable to produce voice. With speech therapy, he / she may learn to speak. Listener may still not be able to understand what is spoken.

### **Articulation disorders:**

Normally children are able to produce all speech sounds clearly by six years of age. If the individual produces one sound for another sound in a given word, he is said to have an articulation disorder. For example "tata" for "kaka", Lama for "Rama". Generally such persons are not easily understood. Some of the serious causes of misarticulation are cleft of lip and palate. A person with a cleft lip will show a tear on the upper lip. When a person opens his mouth and a hole is observed in the roof of the mouth, then it is called a cleft palate. Such persons

appear to speak through their nose and have misarticulation. A person with weakness, incoordination and paralysis of the muscles of speech may have misarticulation. Problems in chewing, swallowing and sucking may also be present.

### **Stuttering or Stammering :**

Persons who have stuttering or stammering exhibit repetitions or prolongations of words, syllables, silent pauses and/or body movements as they speak. In some persons, stuttering can be severe, as to make it difficult to understand what is spoken. Whether his/her speech can be understood or not, is to be elicited from the informant. Persons with stuttering can learn to speak fluently with speech therapy.

### **Delayed speech and Language Development (Specially for 0-4 years):**

Our ability to speak helps us to know more about the world we live in. Delay in speech and language development is known to have serious consequences on the child's overall development including scholastic, intellectual and social development. Early identification of these individuals is essential for effective rehabilitation.

The development of the child's speech and language is to be considered as appropriate to his/her age if the child's speech and language ability is almost that of the development expected of children of his/her age. Speech is acquired systematically in stages. Knowledge of the developmental milestones for speech and language can help you to detect any delay.



### **The milestones are:**

Around 6 months-Babbling stage: The child starts repeating syllables such as 'ba-ba-ba' or 'da-da-da' etc.

Around 18 months-One word stage: The child can speak a few meaningful words.

Around 2 years-Two word phrase period: The child has a speaking vocabulary of 300 words and is learning to speak in two word sentences.

Around 3-4 years-Sentence stage: By 3 years of age the child has a vocabulary of 1000 words and speaks in well formed sentences. By 4 years the child can tell small incidents and stories.

The assessment of the child's comprehension should be related to child's age and what is expected of him/her at that age. The following schedule may be used as rough guidelines to decide whether the child has difficulty in comprehension.

At 12 months of age, children understand simple directions such as 'give', 'no' and 'where' questions. At 2 years of age, the child is able to follow simple directions and stories. At 3 years of age, understands questions such as 'what', 'where' and comments like 'don't' and can identify objects when told of their use. By 4 years of

age the child understands long stories and complex commands.

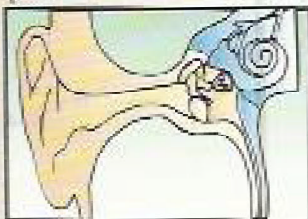
There are a number of reasons why children do not acquire appropriate speech and language skills. These may be mental retardation, cleft lip or palate, brain damage, hearing loss, cerebral palsy, and lack of environmental stimulation to learn spoken language.

If the speech is not understandable as compared to other children of the same age, then the child is to be treated as having speech defect.

### **Language Disorders:**

There are special areas in the brain for processing speech and language. Due to stroke or any head injury, a person may lose his ability to communicate using speech. These disorders are often seen in elderly persons. Some patients may lose their ability to understand speech while others may not be able to express themselves. Sometimes both expression and understanding may be lost. They may find it difficult to understand simple instructions like 'stand up', 'raise your left hand', 'where is your pen?' etc. In expressing themselves, some may not be able to speak at all or their words may be unclear and not understood by the listener.

### **Additional Information : Know your ears for better hearing**



Majority of deaf children suffer from sensorineural loss and have to be fitted with suitable hearing aids. A few of them may benefit from Cochlear Implant - a sophisticated high cost surgery.

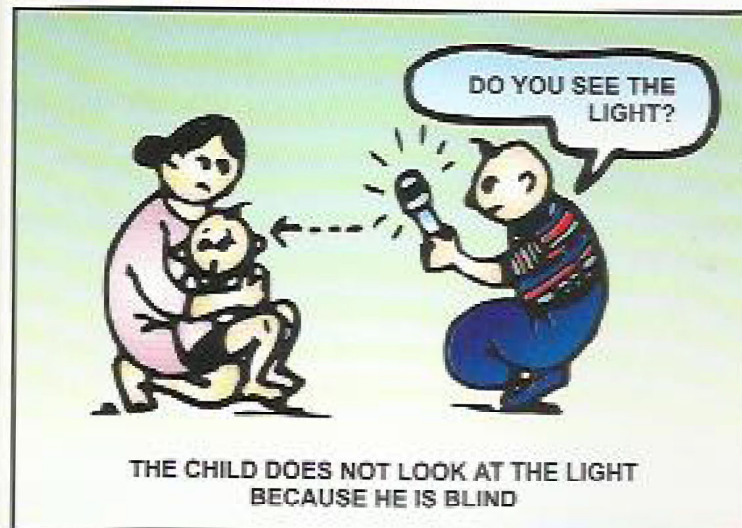


Problems in outer ear or middle ear lead to conductive deafness which can be treated by medicine or surgery.



## VISUAL DISABILITY

Visual disability is total absence of vision or presence of partial vision. A visually disabled person may not be able to perceive any light with both eyes open. Those who have light perception but cannot correctly count fingers of a hand (with or without use of spectacles/contact lens) from a distance of 3 meters in broad day light with both eyes open are also visually disabled.



A person with visual disability may have:

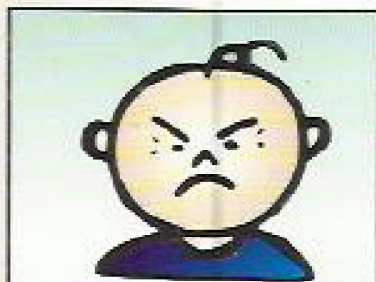
- Loss of peripheral vision while retaining most of the central vision (like in Glaucoma)
- Diminished vision caused by density or opacity of the lens. There is an overall haziness particularly in glaring light conditions. (Cataract)
- A hole or tear in the retina (back of eye) that allows fluid to lift the retina from its normal position (Retinal detachment)
- A form of tunnel vision. Generally only a small area of central vision remains (Retinitis Pigmentosa)
- A breakdown of a central part of retina that results in the area of decreased central vision called a blind spot or scotoma. Peripheral vision remains unaffected. (Macular Degeneration)
- Distorted image or clouded image as a result of which visibility is not clear.
- Ulcers over cornea.



## Signs to Watch for Early Detection of Visual Disability



- **Rubbing eyes :**  
Child rubs his eyes excessively during close visual work.
- **Closed eyes or shuts or covers one eye:**  
Eyes are closed or child keeps his one eye closed, tilts his head or thrusts his head forward.
- **Unusual facial expressions and behaviour :**  
Demonstrates an unusual amount of squinting, blinking, frowning, or facial distortion.



- **Eye Discomfort :**  
Complains of blurring, itching or scratchiness of the eyes.
- **Complains of blurred or double vision.**

- Red eyelids or crusts on lids.
- Has frequent or persistent styes or swollen lids.
- Has watering eyes or discharging eyes.
- Has crossed eyes or eyes that do not appear to be straight.
- Pupils are of uneven size.
- Eyes move excessively.
- Has drooping eyelids and uses one eye more than the other when looking at an object.

### 0-3 Months Infant



- Does not follow an object or light that is moved in front of him
- Does not see anything around
- Does not move eyes even when you take away bright coloured object.
- Does not reach for things held in front



of him, unless the things make a sound or touch him.

- Does not play with hands.

### 3-6 Months Infant



- Does not reach for toy in the visual field.
- Does not keep eye contact with mother when being fed or cuddled.
- Does not visually inspect the object in hand.

### 6-9 Months Infant

- Does not crawl and sit,
- Does not discriminate visually between similar objects or people.
- Is unable to pick up small objects.

### 9-12 Months Infant

- Shuts or covers one eye while focusing
- Holds playthings very close to eyes.

- Bumps into large objects while crawling.
- Rubs his eyes excessively.
- Does not attempt to grasp spoon or cup when being fed.
- Does not attempt to reach for the bright coloured toy that is lying at a short distance.
- Does not imitate simple motor play such as waving hands, bye-bye.
- Uses one eye more than the other when looking at an object.

### 1-2 Years Child



- Walking is delayed.
- Bumps into large objects.
- Does not take interest in brightly coloured objects or pictures.
- Holds the books very close to his/her face.
- Not interested in playing.

### 2-5 Years Child

- Clumsiness and trouble walking in a new environment.
- Stumbles over small objects.
- Bumps into large objects.
- Not interested in game involving catching, throwing, bouncing or tagging.
- Not interested in books.
- Can not see distant things clearly.
- Places head close to the task he/she is doing.

new environment.

- Difficulty in seeing what is written on the black board.
- Constant requests for someone to tell what is going on.
- Uses unusual or fistled pencil grasp, frequently breaking pencil.
- Has a spidery, excessively sloppy or very hard to read hand writing.
- Having to hold one's head in an awkward position, or having to hold material very close to one's eyes, in order to see.
- Skips words and re-reads.

### School Age Child

- Teachers or parents may observe :
- Clumsiness and trouble walking in a

new environment.

- Has poor eye-hand coordination and unusual awkwardness including difficulty with stairs, throwing and catching ball, buttoning and unbuttoning and tying.





## MENTAL DISABILITY

Persons who have difficulty in understanding routine instructions, who do not carry out their activities like others of similar age or exhibit behaviour like talking to self, laughing / crying, staring, violence, fear and suspicion without reason would be considered as mentally disabled. The "activities like others of similar age" will include activities of communication (speech), self-care (cleaning of teeth, wearing clothes, taking bath, taking food, personal hygiene, etc.), home living (doing some household chores) and social skills.

Mental disability includes mental retardation and mental illness.

### Mental retardation

Mental retardation is a condition where the mental capacity (intelligence) is less than average in the person. A person with mental retardation is i) slow in mental development, ii) has delay in developments including sitting, standing, walking and talking and iii) the condition occurs in childhood (before the age of 18 years). Some of the characteristics are given in the following pages. All characteristics may not be present in a single person.



#### 1. Slow reaction

Generally they respond slowly to what others say and to what happens in their surroundings. Sometimes they do not respond at all. They need to be told repeatedly.



#### 2. Absence of clarity

They can not express clearly their thoughts, needs and feelings.



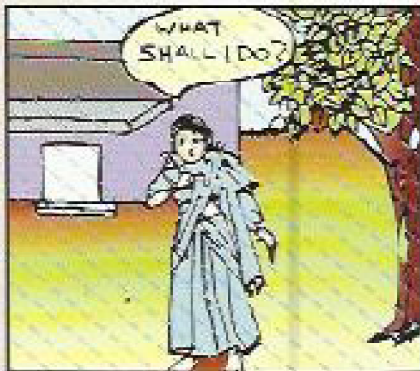
#### 3. Inability to learn fast

They have difficulty in learning activities which are new and different. They are slow in learning.



#### 4. Inability to understand quickly

They have difficulty to understand easily what they see, hear and touch.



#### 5. Inability to decide

They can not make even simple decisions. They do not know what to do, say and so on, unless trained.



#### 6. Lack of Concentration

Some of them cannot give continuous attention to one person or one activity. Some of them have difficulty in changing from one activity to another.



#### 7. Short Temper

Some find it difficult to control their feelings. They may throw things all over, injure themselves or others, or impulsively even hurt others.

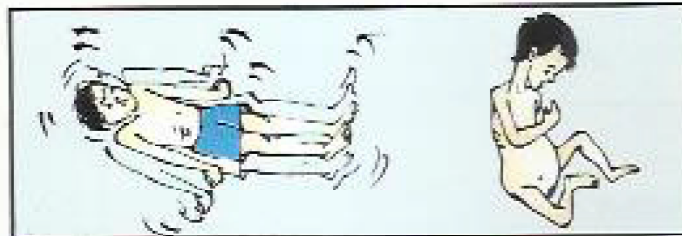
### 8. Inability to remember

Some can remember only for a short time of what they are told or what they see. Some times they do not remember at all .



### 9. Lack of coordination

Some have difficulty in sucking, chewing or eating, use of hands or going from place to place.



10. Some have difficulty in seeing, some in hearing and some have fits. Some have poor or no speech. Some have nutritional problems and gross weakness of the body.



11. Some persons have obvious physical features like small or large head; small eyes, straight hair, fissured tongue, low set ears and small stature, physical deformities and paralysis of one or more limbs. If they are school going they are found to be very poor in studies and unable to cope with studies. They have repeated failures.

One of the major characteristics of a person with mental retardation is delayed development. They lag behind in the normal milestones of development. Some of the normal milestones of development and the average age range at which they attained are :

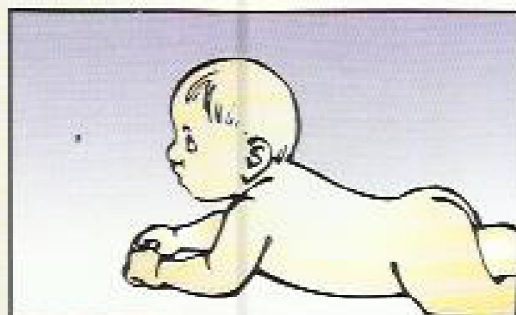




1. Responding to name/voice :  
1-3 months



2. Smiling at others :  
1-4 months



3. Neck Control (holding head steady) : 2-6 months



4. Sitting without support :  
5-10 months



5. Standing with support :  
9-14 months



6. Walking Independently :  
10-20 months



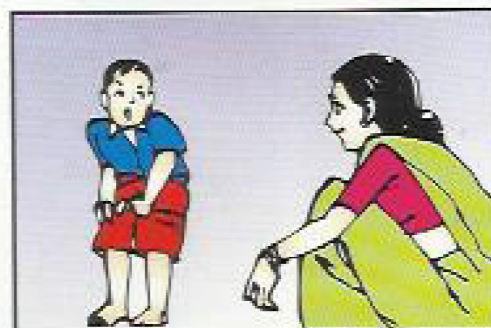
7. Talking in 2-3 word sentences :  
16-30 months



8. Eating/drinking by self :  
2-3 years



9. Telling ones name : 2-3 years



10. Toilet control: 3-4 years

### Additional Information

In a mentally retarded child, generally there is a disparity between the actual age and expected development. This disparity varies from person to person. Examples of such a disparity are 1) a Ten year old child may behave like a one year old child, learning to walk, 2) a twelve year old child may behave like a five year old child, learning alphabets 3) a fifteen year old child may look normal in all aspects but may not have the knowledge of even a ten year

old and may be repeatedly failing in fourth or fifth standard.

Based on such a disparity between physical and mental age the level of retardation can be classified as mild moderate, severe or profound. It is easy to spot persons with moderate, severe and profound retardation because of obvious gross delay in the development. It requires detailed enquiry to find out mild delay in development.



## MENTAL ILLNESS

Mental illness is characterized by disturbances in thinking, feeling, memory and judgement resulting in behaviour such as talking to self, laughing/crying, staring, violence, fear and suspicion without reason.

Most of the mental illness can be treated completely if they are identified early and given the treatment for the complete course. Some of them, inspite of treatment will have prolonged illness, exhibiting difficulties in coping with the day-to-day activities. The persons suffering from such type of long standing (chronic : more than 5 years), resistant, mental illness are categorized as mentally disabled.

Some of the other characteristics of mentally ill persons include, extreme sleep disturbances, extreme mood disturbances, extreme forgetfulness, repeated washing, checking or doubting etc.

### Additional Information

The additional information given below may be helpful in relating the characteristics of mental illness with various types of abnormalities given below

- I. Schizophrenia
- II. Bipolar disorder
- III. Obsessive compulsive disorder
- IV. Dementia

#### I. Schizophrenia

If person is having most of the following symptoms for a long time consider the possibility of chronic schizophrenia.

- Irrelevant and / or incoherent talk and acting in a strange manner considered abnormal.
- Claiming to hear voices or see things which others cannot hear or see.
- Talking and / or smiling without a reason.
- Remaining quiet and asocial, remaining





aloof not mixing with friends / peers eg. not participating in functions and / or get-togethers.

- Suspecting and claiming that people are trying to harm him, eg. saying that someone is planning to kill him, claiming that spouse is unfaithful, saying that people are talking and smiling at him.
- Neglecting the self care - not interested in bathing, shaving, dressing and combing etc.
- Not attending gatherings/functions, not going to the job/college regularly etc.
- Denying / not accepting that he has a problem.



## II BIPOLAR DISORDER

This condition is characterized by extreme mood swings. That is, person will be very happy, elated, overactive (manic) for some days and then he can go to the other extreme and suffer from sustained sad feelings, dull, inactive (depressed) for some days.

### A. MANIA

Each episode of mania can be presented with most of the following symptoms.

- Sustained happy mood
- Sudden outburst of aggression, breaking, damaging the property.
- Increased talkativeness
- Increased self-esteem. Claiming that he is the best, he is the richest or he is the strongest.
- Indulging in excessive intake of drugs and alcohol.
- Indulging in excessive spending
- Dancing and singing in inappropriate circumstances.





## B. DEPRESSION

Depressive episode is characterized by:

- Sustained sadness
- Decreased interest in routine activities (college, job) and pleasurable activities (playing, picnics, watching movies etc.)
- Sleeplessness
- Less talkative
- Crying excessively
- Feeling that life is not worth living
- Suicidal ideas / attempts



If the person is suffering from recurrent mania and depressive episodes, he is said to be suffering from bipolar disorders.

## III. OBSESSIVE COMPULSIVE DISORDER

This is a type of mental illness characterized by some of the following symptoms:

- Unpleasant pre-occupation with unusual thoughts and ideas.
- Irresistant desire to perform like counting the numbers, washing the hands, touching the objects.
- Unusual doubting e.g. Checking the door (whether it is locked or not) repeatedly, checking the gas repeatedly with a doubt whether it is turned off or not.
- Associated with severe anxiety, restlessness and guilt feeling.
- Person is aware of the problem and usually willing for treatment.

#### IV. DEMENTIA

This is a condition affecting the elderly population (above 60 to 65 years of age). This is characterized by some of the following :

- Decline in memory - forgetfulness
- Cannot learn new information
- Deterioration in performing the activities of daily life becoming dependent.
- Cannot plan and organize
- Emotionally unstable
- Disoriented in time, person and place cannot have the sense of time, day and date.
- Cannot recognize the relatives, friends and familiar places.
- Cannot take decisions.
- Cannot find a solution for a problem.

(Source : Illustration are taken from Manual of Mental Health Care for Multipurpose workers, 1988, NIMHANS, Bangalore.)