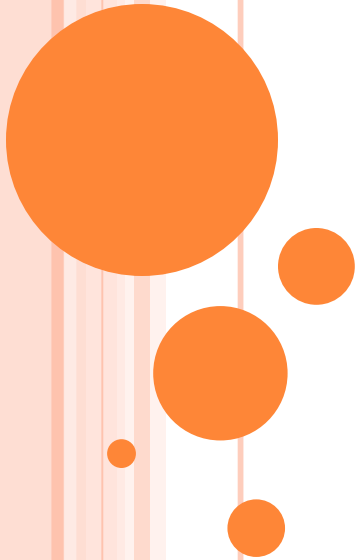


# DOWN SYNDROME



- Down syndrome is the commonest chromosomal disorder and most common identifiable cause of mental retardation.
- Down syndrome is a genetic condition in which a person has 47 chromosomes instead of the usual 46.



## CAUSES, INCIDENCE, AND RISK FACTORS

- In most cases, Down syndrome occurs when there is an extra copy of chromosome 21. This form of Down syndrome is called Trisomy 21. The extra chromosome causes problems with the way the body and brain develop.
- Down syndrome is the most common single cause of human birth defects.



# SYMPTOMS

- Down syndrome symptoms vary from person to person and can range from mild to severe. However, children with Down syndrome have a widely recognized appearance.
- The head may be smaller than normal and abnormally shaped. For example, the head may be round with a flat area on the back. The inner corner of the eyes may be rounded instead of pointed.



## COMMON PHYSICAL SIGNS INCLUDE:

- Decreased muscle tone at birth
- Excess skin at the nape of the neck
- Flattened nose
- Separated joints between the bones of the skull (sutures)
- Single crease in the palm of the hand
- Small ears
- Small mouth
- Upward slanting eyes
- Wide, short hands with short fingers
- White spots on the colored part of the eye (Brushfield spots)











Widely spread first and second toes





Children may also have delayed mental and social development. Common problems may include:

- Impulsive behavior
- Poor judgment
- Short attention span
- Slow learning
- As children with Down syndrome grow and become aware of their limitations, they may also feel frustration and anger.



# MANY MEDICAL CONDITIONS ARE SEEN

- ASD, VSD
- DEMENTIA, CATARACT
- ESOPHAGEAL & DUODENAL ATRESIA
- HIP DISLOCATION
- SLEEP APNEA
- HYPOTHYROIDISM



## DIAGNOSIS

- Physical characteristics are sufficient
- To confirm: chromosomal study, dermatoglyphic findings and radiological findings of bony abnormalities



# MANAGEMENT

- There is no specific treatment for Down syndrome
- Symptomatic treatment
- Daily supportive care should be provided to prevent acquired health hazards.
- Physiotherapy, speech therapy, special educational facilities, occupational training can be helpful.



# NURSING MANAGEMENT

- Altered nutrition: more than body requirements – imbalance of intake vs activity expenditures and intolerance's.
- Potential for Injury due to: Atlantoaxial Subluxation Poor vision and hearing Hypotonia
- Potential for infection related to increased susceptibility for illness secondary to compromised immune system and heart disease.



- Potential for self care deficit related to inability to do adequate ADL's due to hypotonia, mental retardation.
- Activity Intolerance related to cardiac condition
- Potential for colonic constipation.

