**Mental Retardation**

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| Mentally Retarded | Mentally Deficient | Mentally Backward | Mentally handicapped | Feeble Mindedness | Oligophrenia | Amentia |

According to **Kirk**:

**“Mentally backward is the one having sub-average intelligence and intellectual functioning, and hence, finds it difficult to cope with the performance of regular grade levels.”**

According to **American Society of Mental Deficiency:**

“Mental Retardation is the sub-average general intellectual functioning which originates during the development period and is associated with impairment in adaptive behavior.”

* **Causes of Mental Retardation:**

Following are some of the cause of Mental Retardation:

1. **Genetics**

About 5% of mental retardation is caused by hereditary factors.

Mental retardation may be caused by an inherited abnormality of the genes, such as **‘Fragile X Syndrome’**. Fragile X, a defect in the chromosome that determines sex, is the most common inherited cause of mental retardation. Single gene defects such as **‘Phenylketonuria’ (PKU)** and other inborn errors of metabolism may also cause mental retardation if they are not found and treated early. An accident or mutation in genetic development may also cause retardation. Examples of such accidents are development of an extra chromosome 18 (trisomy 18) and **‘Down Syndrome’**. Down syndrome, also called mongolism or trisomy 21, is caused by an abnormality in the development of chromosome 21. It is the most common genetic cause of mental retardation.

1. **Prenatal Illness & Issues:**

‘Fetal Alcohol Syndrome’ is one of the most prominent causes of mental retardation. It is caused by excessive alcohol intake in the first twelve weeks (trimester) of pregnancy. Some studies have shown that even moderate alcohol use during pregnancy may cause learning disabilities in children. **‘Drug Abuse’ and ‘Cigarette Smoking’** during pregnancy have also been linked to mental retardation.

Moreover, maternal infections and illnesses can also cause mental retardation. When the mother has high blood pressure **(hypertension)** or blood poisoning **(toxemia),** the flow of oxygen to the fetus may be reduced, causing brain damage and mental retardation.

**‘Birth Defects’** that cause physical deformities of the head, brain, and central nervous system frequently cause mental retardation. Neural tube defect, for example, is a birth defect in which the neural tube that forms the spinal cord does not close completely. This defect may cause children to develop an accumulation of cerebrospinal fluid on the brain **(hydrocephalus).** Hydrocephalus can cause learning impairment by putting pressure on the brain.

1. **Childhood Illnesses & Injuries:**

**Whooping cough, chickenpox, measles, and Hib disease** (a bacterial infection) may cause mental retardation if they are not treated adequately. An infection of the membrane covering the brain **(meningitis)** may cause brain damage and mental retardation. Traumatic brain injury caused by a l blow or a violent shake to the head may also cause brain damage and mental retardation and children.

1. **Environmental Factors:**

Ignored or neglected infants who are not provided the mental and physical stimulation required for normal development may suffer irreversible learning impairments. Children who live in poverty and suffer from **malnutrition,** unhealthy living conditions, and improper or inadequate medical care are at a higher risk. Exposure to lead can also cause mental retardation. Many children have developed **lead poisoning** by eating the flaking lead-based paint often found in older buildings.

They are not treated adequately. An infection of the membrane covering the brain (meningitis) or an inflammation of the brain itself (encephalitis) because swelling that in turn may cause brain damage and mental retardation. Traumatic brain injury cause by a blow or a violent shake to the head may also cause brain damage and mental retardation in children.

**Key terms**

**Development Delay**

The failure to meet certain development milestones, such as sitting, walking and talking at the average age. Developmental delay may indicate a problem in development of the central nervous system.

**Down Syndrome**

A disorder caused by an abnormality at the 21st chromosome. One symptom of Down Syndrome is mental retardation.

**Hib Disease**

An infection caused by Haemophilus influenza type b (Hib). This disease mainly affects children under the age of five. In that age group, it is the leading cause of bacterial meningitis, pneumonia, joint and bon infections and throat inflammations.

**Inborn error of metabolism**

A rare enzyme deficiency; children with inborn errors of metabolism do not have certain enzymes that the body requires to maintain organ functions. Inborn errors of metabolism can cause brain damage and mental retardation if left untreated. Phenylketonuria is an inborn error of metabolism.

**Phenylketonuria (PKU)**

An inborn error in metabolism that prevents the body form using phenylalanine, an amino acid necessary for normal growth and development.

**Trisomy**

An abnormality in chromosomal development chromosomes are the structures within a cell that carry its genetic information. They are organized in pairs. Humans have 23 pairs of chromosomes. In a trisomy syndrome, an extra chromosome is present so that the individual has three of a particular chromosome instead of the normal pair. An extra chromosome 18 (trisomy 18) causes mental retardation.

**Ultrasonography**

A process that uses the reflection of high frequency sound waves to make an image of structures deep within the bod. Ultrasonography is routinely used to detect fetal abnormalities.