PC2 Mailbox

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## **Disability Awareness Begins With You:** Intellectual Disability

Intellectual disability is characterized both by a significantly below-average score on a test of mental ability or intelligence and by limitations in the ability to function in areas of daily life, such as communication, self-care, and getting along in social situations and school activities. Intellectual disability is sometimes referred to as a cognitive disability or mental retardation.

Children with intellectual disability can and do learn new skills, but they develop more slowly than children with average intelligence and adaptive skills. There are different degrees of Intellectual disability, ranging from mild to profound. A person's level of Intellectual disability can be defined by their intelligence quotient (IQ), or by the types and amount of support they need.

People with intellectual disability may have other disabilities as well. Examples of these coexisting conditions include cerebral palsy, seizure disorders, vision impairment, hearing loss, and attention-deficit/hyperactivity disorder (ADHD). Children with severe intellectual disability are more likely to have additional disabilities than are children with mild Intellectual disability.

Intellectual disability can start anytime before a child reaches the age of 18 years. It can be caused by injury, disease, or a brain abnormality. These causes can happen before a child is born or during childhood. For many children, the cause of their intellectual disability is not known. Some of the most common known causes of intellectual disability are Down syndrome, fetal alcohol syndrome, and fragile X syndrome, all of which occur before birth. Other causes that take place before a child is born include genetic conditions (such as Cri-du-chat syndrome or Prader-Willi syndrome), infections (such as congenital cytomegalovirus), or birth defects that affect the brain (such as hydrocephalus or cortical atrophy). Other causes of intellectual disability (such as asphyxia) happen while a baby is being born or soon after birth. Still other causes of intellectual disability do not happen until a child is older. These may include serious head injury, stroke, or certain infections such as meningitis.

Right now, we do not know how to prevent most conditions that cause intellectual disability. However, there are some causes that can be prevented. Fetal alcohol syndrome (FAS) is one such cause. A woman can prevent FAS by not drinking when she is pregnant. CDC funds several projects to study how common FAS is, how to encourage women not to drink during pregnancy, and how to help people with FAS and their families.

Some metabolic conditions, such as phenylketonuria (PKU), galactosemia, and congenital hypothyroidism, can cause intellectual disability and other problems if babies with these conditions do not begin treatment soon after birth. Parents and doctors can find out if a child has one of

these conditions through a simple blood test or heel prick. Newborns in the United States are tested soon after birth, but different states test for different conditions. Parents can request that their baby be tested for all conditions that have tests. Children that do have these conditions are usually treated with medicine or put on a special diet. If the correct treatment is started soon enough after the child is born and continues as long as needed, the child will not have intellectual disability.

It's also important for women with PKU to follow a special diet when they are pregnant. If they do not follow their diets, their babies are very likely to be affected by intellectual disability and other birth defects.

Another cause of intellectual disability that can be prevented is kernicterus, a kind of brain damage that happens when a newborn baby has too much jaundice. In some newborn babies, the liver makes too much yellow pigment called bilirubin. If too much bilirubin builds up in a new baby's body, the skin and whites of the eyes turn yellow. This yellow coloring is called jaundice. A little jaundice is not a problem. It is actually very common in newborn babies and usually goes away by itself. Some babies, however, have too much jaundice. If not treated, these high levels of bilirubin can damage a baby's brain. Kernicterus most often causes cerebral palsy and hearing loss, but in some children it can also cause intellectual disability. Kernicterus can be prevented by using special lights (phototherapy) or other therapies to treat babies.

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