

# Mental Slowness

## CHAPTER 32

### Down Syndrome, Hypothyroidism, and Other Causes

Mental slowness is a delay in a child's mental development. **The child learns things more slowly than other children his age.** He may be late at beginning to move, smile, show interest in things, use his hands, sit, walk, speak, and understand. Or he may develop some of these skills more quickly, but be slower in others.

Mental slowness ranges from mild to severe. The child who is **mildly slow** takes longer to learn certain skills. But with help he can grow up to care for himself and take an active, responsible part in the community. The child who is **severely slow**, as he grows older, may stay at the mental age of a baby or young child. He will always need to be cared for in some ways.

Mental slowness cannot be cured. However, **all mentally slow children can be helped to progress more quickly. The earlier special help or 'stimulation' begins, the more ability the child is likely to gain.**

**IMPORTANT:** In this chapter we look at some of the **causes of mental slowness** and briefly describe 2 common forms (Down syndrome and hypothyroidism). However, **mental slowness is only one of the reasons for slow development in children.** A child who is blind will be slow in learning to reach and move about **unless** he has extra help and encouragement. A child who is deaf will be delayed in learning to communicate unless he is helped to learn to 'talk' in other ways than speech. A child who has a severe physical **disability** is often slow in developing use of both his body and mind. Because 'developmental delay' is common with so many disabilities, we include discussion of it in several separate chapters.



With help, some mentally slow children can learn to read and write, and do many of the things that normal children do. (Photo of a child with Down syndrome in Indonesia, by Carolyn Watson, Christian Children's Fund.)

**Information on helping a child who is mentally slow** or developmentally delayed is in Chapters 34 to 40. Chapters 34 and 35 discuss **early child development** and ways to help or 'stimulate' a child to learn early skills (use of the senses, movement, and communication). Chapters 36 to 39 discuss **learning for self-care** (feeding, dressing, toileting, and bathing). Chapter 40 discusses **child behavior**, and ways to encourage behavior that helps learning.

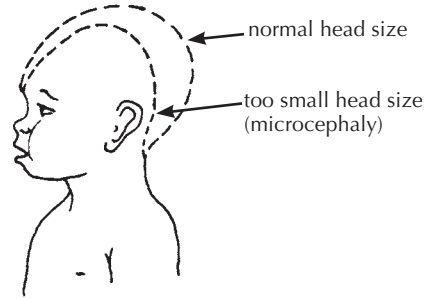
Other ideas for helping mentally slow children are in the CHILD-to-child activity on pages 442 to 445. The needs and problems of mentally slow children as they become sexually grown up are discussed in Chapter 52, p. 495.

One important need that we do not include in detail in this book is **education for mentally slow children.** Some possibilities are discussed in Chapter 53, on education. But often special teaching methods and materials are needed. An excellent book is *Special Education for Mentally Handicapped Pupils*. (See p. 640.) For toys that help a child learn, see Chapter 49.

## CAUSES OF MENTAL SLOWNESS

There are many causes.

- Often the cause is **not known**.
- Some children are born with a very **small brain**, or the brain does not grow or work normally.
- Sometimes there is a **'mistake' in the 'chromosomes'** or the tiny chemical messages that determine what a child will be like (*inheritance*). This is what happens in Down syndrome.
- Sometimes a mother did not **get enough of a certain food or mineral during pregnancy**. (See "Hypothyroidism," p. 282.)
- **Brain damage** can happen either before, during, or after birth. In addition to being mentally slow, these children may also have cerebral palsy, blindness, deafness, or seizures. Common causes of mental slowness from brain damage are discussed in Chapter 9, and include:
  - **German measles** during early pregnancy
  - **meningitis** (brain *infection*) from bacteria, tuberculosis, or malaria, most often during early childhood
  - **hydrocephalus**, often with spina bifida (see p. 169)
  - **head injuries**
  - **other causes** include **brain tumor**, **poisoning** from lead, pesticides (see p. 15), infection from the mosquito-carried Zika virus, certain medicines and food, and some forms of **muscular dystrophy** or atrophy (see p. 110)



A child with *microcephaly* (small brain) is mentally slow and often also develops vision, hearing, or other physical problems. For measurements of head size, see p. 41.

In many parts of the world, the most common causes of mental slowness are brain damage and Down syndrome. But in some mountainous areas, it is very often caused by **lack of iodine** in food and water (see p. 282).

**Usually there is no treatment for mental slowness.** Therefore, we often do not need to know the exact cause. Instead, we need to help the child develop the best he can. However, in some cases, certain medicines, changes in diet, or prevention of further poisoning can make a big difference. If a child has any signs of hypothyroidism or seems to be gradually losing mental ability, try to get expert medical advice.

**Prevention of mental slowness** is discussed with its different causes. See especially cerebral palsy (p. 107), Down syndrome (p. 281), and hypothyroidism (p. 282).

### MENTAL ILLNESS is different

Some people confuse 'mental slowness' with 'mental illness'. But they are very different. A person who is mentally ill may have normal or high intelligence, and may be highly educated. But because of stressful experiences, or some illness affecting the brain, his behavior becomes strange. When a mentally slow person behaves in an abnormal way, it is usually because he has not learned the correct way to behave; he needs to be taught. The mentally ill person needs special help—perhaps from a spiritual healer or 'psychiatrist' (soul doctor). **Persons with mental illness are like persons with any other illness. Often they cannot control their strange behavior. We should not blame or punish them, but give them love, protection, and understanding.**

## DOWN SYNDROME

In many areas, Down syndrome—or ‘mongolism’—is the most common form of mental slowness. These children are slower than others in learning to use their bodies and their minds. There are also certain physical signs or problems. (This combination of various signs is called a ‘syndrome’.) The baby does not develop normally in the womb because of an error in the ‘chromosomes’ (material in each cell of the body that determines what a baby will be and look like).

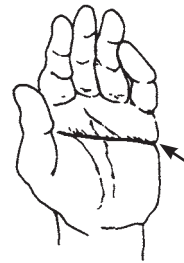
These are the typical **signs of Down** (but **not all** the children have **all** these signs):

- At birth, baby seems floppy and weak.
- Baby does not cry much.
- The baby is slower than other babies her age to: turn over, grasp things, sit up, talk, walk.
- When suddenly lowered, the baby does not react by spreading her arms, as a normal baby does.



- eyes slant upward; sometimes cross-eyed or poor sight
- ears low
- small mouth, hangs open; roof of mouth is high and narrow; tongue hangs out

- A fold of skin covers the inner corner of the eyelid.
- Eyelids may be swollen and red.
- The iris of the eye has many little white specks; like sand. These usually go away by 12 months of age.



- short wide hands with short fingers; little finger may be curved, or have only one fold
- one deep crease across the palm (sometimes in normal children, too)

- short or small head, wide and flat in the back
- sometimes dislocated hips



- flat face
- small nose, flat between the eyes



- short neck
- rounded shoulders
- short arms and legs
- kneecap slips to one side
- ‘pigeon-toed’; flat feet
- big toe far apart from other toes

### Other possible signs:

- Elbow, hip, and ankle joints may be very loose and flexible.
- One out of 3 has heart problems.
- May develop leukemia (blood cancer).
- Check older children for hearing and seeing problems.
- One out of 10 has deformed neck bones which can slip and pinch the nerve cord in the spine. This may cause sudden or slowly increasing **paralysis**—or sudden death.

## Care of children with Down and other forms of mental slowness

Mental slowness in children with Down syndrome can be mild, moderate, or severe. Some children never learn to speak. Others talk (and often love to talk). Many can learn to read and write. Most of these boys and girls are very friendly and affectionate, and behave well with people who treat them well. Even those who have more severe mental slowness, with help and good teaching usually learn to take care of their basic needs, and to help out with simple work. They can live fairly normally with their families and communities.

In rural areas particularly, they can learn to do many important jobs. Sometimes they do repetitive jobs as well or better than other people.

But their physical and mental development is slower than normal. So parents and all those who take care of these children must be very patient with them and from a very early age do all they can to help them develop their mental and physical capabilities. To avoid or solve behavior problems, parents need to be very consistent in how they treat their children and in what they expect of them. The child needs a lot of praise and encouragement for things he does well (see Chapter 40).



In one village, a young man with Down works hauling water from the river, a job he is happy and proud to do.

Some children with Down syndrome can go to school, but they will need extra help. It is important that teachers understand their problem and help other children to treat the mentally slow child with respect. Unless the child is given understanding and extra help at school, in rural areas it may sometimes be better for the child with Down syndrome to be educated at home through helping his family around the house and in the fields.

There are 3 main concerns in caring for a child with Down syndrome:

1. Help the child to develop her or his mental and physical abilities.
2. Protect the child from infectious diseases.
3. Prevent or correct deformities.

Here we will discuss the last 2 concerns. The first we will cover in other chapters.

**IMPORTANT:** For a child who has Down syndrome, or is mentally slow, be sure to **read all the chapters on early child development and learning basic skills. Chapters 33 to 41.**



A child with Down syndrome learns to remove pegs from a pegboard. Later she will learn to place the pegs. Photo from *Teaching Your Down's Syndrome Infant* by Marci J. Hanson.

## Protection from infections

Children with Down syndrome get sick more often than other children. They can easily catch colds, bronchitis, pneumonia, and other infections. So it is very important to protect their health.

- **Breast feed** the child as long as possible. Breast milk has 'antibodies' that help the child to fight infections. (If he cannot nurse well, milk your breasts and feed him the milk, using a spoon or any way that works.)
- Like any baby, at 6 months start giving her other foods such as fruit, beans, eggs, and rice, but also continue to breast feed her. (Like any baby, weigh her each month at the health center to be sure she is growing well.)
- **Vaccinations** can protect her from many childhood diseases. A child with Down syndrome who catches measles or whooping cough can easily get pneumonia.
- **Early medical attention** When she gets a sore throat, earache, or bad cough, take her to a health worker as soon as possible.

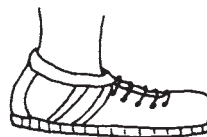


## PREVENTION of foot deformities and other problems

- Check all newborns for possible *dislocated* hip, so that it can be corrected as soon as possible (see p. 155).
- For the child whose big toe sticks out, do not use hard shoes that bend the big toe inward like this. It is better to wear tennis shoes, or other soft shoes, or sandals.



This can cause a painful dislocation here.



When the big toe sticks out a lot, its position can sometimes be corrected with surgery, so that shoes will fit without problems.

- If the child has **severe** flat feet, a special insole may help. (See p. 118.)
- If any sign of paralysis or lack of feeling develops in the hands, feet, or body, get advice from an orthopedist or a neurosurgeon.

## PREVENTION of Down syndrome

One out of every 800 children is born with Down syndrome. Down syndrome is more likely to occur in babies of mothers older than 35 years of age. It is wise for older women to plan their families so as to have no more children after age 35 (see *Where There Is No Doctor*, Chapter 20). Also, if a couple already has one child with Down, the chance of having another is higher than normal (about one in 50).

In some countries a test (amniocentesis) can be done at about 4 months of pregnancy to see if the child will have Down syndrome. If so, the family can consider abortion.



## HYPOTHYROIDISM (Cretinism)




Hypothyroidism is a delay in both mental and physical growth that comes when a child's body does not produce enough 'thyroid'. Thyroid is a substance, or 'hormone', that controls a child's growth and body functions. Without it, everything goes slower.

Thyroid is produced by a gland in the front of the neck. To produce thyroid, the gland needs iodine. Most people get enough iodine from water and food. But in some areas, especially in the mountains, the soil, water, and food have very little iodine. In an attempt to obtain more iodine, the thyroid gland sometimes grows very large, forming a swelling called a goiter.



In areas where there is little iodine and a lot of people have goiters, hypothyroidism is common. In these areas, many children have **difficulty hearing** or are somewhat **slow mentally**. Although they do not show all the typical signs of hypothyroidism, the cause is probably the same. Occasionally, in areas where goiter is not common, hypothyroidism occurs for other reasons than lack of iodine.

**SIGNS** Below we show some of the typical signs of hypothyroidism and compare them with Down syndrome, which hypothyroidism resembles in some ways. It is often difficult to tell if a newborn baby has hypothyroidism. She is often born large and then fails to grow normally. The baby may have feeding difficulties, or breathing difficulties or make noises because of the large tongue. She moves and cries little. By 3 to 6 months the mother often becomes worried because the baby looks dull, takes so little interest in things, sleeps so much, and is slow in all areas of development.

Signs of HYPOTHYROIDISM	Signs seen in both HYPOTHYROIDISM and DOWN	Signs of DOWN SYNDROME (that are most useful in telling it from hypothyroidism)
 <ul style="list-style-type: none"> <li>• hair low on forehead</li> <li>• puffy eyelids</li> <li>• flat base of nose between eyes</li> <li>• puffy face, hands, and feet</li> <li>• fatty swelling here</li> <li>• grows very slowly; increasingly short for age</li> <li>• severe constipation (may go days without shitting)</li> <li>• often deafness</li> <li>• As child grows, knees may get large and painful.</li> </ul> <ul style="list-style-type: none"> <li>• temperature below normal</li> <li>• thick, dry, cool skin</li> </ul>	<ul style="list-style-type: none"> <li>• slow mental and physical development</li> <li>• widely separate eyes</li> <li>• round face, dull look</li> <li>• tongue sticks out of open mouth</li> <li>• short neck and limbs; wide, short hands</li> <li>• big belly and sway back</li> <li>• often hernia of the navel</li> </ul> 	<ul style="list-style-type: none"> <li>• hair starts high on forehead</li> <li>• slant eyes with lid fold over inner corners</li> </ul> <p>For other signs, see p. 279.</p> 

**WHAT TO DO** Early and continued treatment with **thyroid medicine** helps improve growth, physical appearance, and sometimes can reduce or prevent mental slowness. For best results, treatment should begin during the first month of life. **As soon as you suspect that a baby might have hypothyroidism, get skilled medical advice.**

To help the child develop mentally and physically, and learn basic skills, read Chapters 34 to 41 and use the ideas that can help meet the child's needs. With early treatment and guided learning, many children with hypothyroidism can learn to care for themselves and do simple but important work in the community. For ideas on managing constipation, see p. 212.

**PREVENTION** In areas where goiter is common, hypothyroidism (and deafness) can be greatly reduced by encouraging everyone to **use iodized salt**.