

# Iodine

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## Note to Communicators

Iodine is a mineral that is essential for the development and growth of the human body. Iodine deficiency disorders (IDD) begin to affect infants before they are born and can change children's and adult's lives. Iodine deficiency is the most common preventable cause of mental disability in the world.

Children born to iodine deficient mothers are at risk of IDD. These children may have permanent mental and physical retardation before birth, or learning disabilities when they get older. The most serious form of mental retardation from IDD is cretinism. Over 20 million people around the world suffer from varying degrees of mental retardation caused by a lack of iodine and around 6 million persons are cretins.

Goiters (swelling of the thyroid gland in the neck) are the most obvious sign of IDD, usually in adults. Other serious problems caused by IDD are pregnancies that result in miscarriages, stillbirths, and low birth weight infants who are more likely to die in infancy than healthy babies. Often these problems are not linked to IDD, but it may well be the cause.

Since entire communities can be affected by IDD, distribution of iodine through iodized salt is the most effective preventive measure. Iodized salt is inexpensive and most families use salt in their food. In communities where IDD is severe, health programs give people shots of iodized oil. This is good for remote communities where iodized salt is not sold, but is NOT a good long-term solution, as is the use of iodized salt.

## Key Facts

These facts can be adapted into simple messages for the public.

1. Iodine deficiency disorders, such as goiter, cretinism and mental retardation, are easily prevented.
2. Everyone should buy and use iodized salt to prevent IDD.
3. Pregnant women who get enough iodine are more likely to prevent miscarriages and give birth to healthy babies.
4. School children in areas with IDD have lower intelligence and more learning disabilities.
5. Iodine deficiency slows the social and economic progress of entire regions.

## **Supporting Information**

### **1. Iodine deficiency disorders, such as goiter, cretinism and mental retardation, are easily prevented.**

- # When the thyroid gland swells, it is called a goitre. The thyroid gland is located in the neck. It is painless but is uncomfortable and big. It is usually a sign of severe iodine deficiency.
- # Iodine can shrink a small goiter but once a goiter grows too big, it may require surgery to be removed. It is much easier and cheaper to prevent goiters by using iodized salt.
- # Cretinism is the most serious form of mental retardation caused by IDD. It causes the child's brain and body to be permanently stunted. The child will not be able to walk, talk or think normally.
- # IDD can be prevented in infants if the mother consumes enough iodine while she is pregnant.
- # The use of iodized salt *cannot* cure cretinism or mental retardation, only prevent it.

### **2. Everyone should buy and use iodized salt to prevent IDD.**

- # Use iodized salt in cooking to prevent IDD in all family members.
- # Iodized salt is used to prevent iodine deficiency-related problems. It is not medicine nor a cure for mental retardation or cretinism.
- # Iodized salt is safe for everyone, even pregnant women, very young children and ill persons.
- # Even if you don't have the signs IDD, you should still use iodized salt to prevent any signs from occurring.
- # Iodine does not change the taste of salt. It has no odor, color, or taste.
- # A person does not need to eat more iodized salt than the amount that is usually consumed in a day. Consuming large

amounts of iodized salt will not make people smarter or grow taller.

- # To make sure that your salt is iodized, read the salt package's label. It will say "Iodized Salt".

**3. Pregnant women who get enough iodine are more likely to prevent miscarriages and give birth to healthy babies.**

- # The only source of iodine for the baby is from the mother. So the mother must make sure that she is consuming salt that has iodine in it.
- # Iodine deficient mothers give birth to iodine deficient babies.
- # Pregnant women who lack enough iodine in their diet are more likely to have miscarriages or stillbirths.
- # Lack of iodine can cause life-long brain damage to babies even if they look normal. As they grow, the brain damage can be seen through poor performance in school and children with IDD will be less coordinated than healthy children.
- # IDD babies may be physically less coordinated than healthy babies.
- # Babies who are born to iodine deficient mothers do not weigh as much as healthy babies and are more likely to die.
- # In severe cases, a baby born to an iodine-deficient mother might be born with cretinism.

**4. School children in areas with IDD are more likely to have lower intelligence and more learning disabilities.**

- # Children with IDD are not as smart or as quick to learn as healthy children.
- # Children with IDD score, on average, 10 - 15% lower on I.Q. tests.
- # Children are less likely to attend school, due to physical and mental difficulties, and therefore cannot get a good education.

**5. Iodine deficiency slows the social and economic progress of entire regions.**

- # Adults who lack iodine in their diets can be tired and weak which decreases their ability to work and provide for the family.
- # If many people in a region suffer from the lack of iodine, the entire intelligence of the region is lowered which affects economic and social development.

**Signs of IDD in Women**

- # She has had a miscarriage or stillbirth.
- # Her babies are born deformed, mentally retarded or cretins.
- # Her babies have problems standing or walking normally.
- # She has a goiter.

**A child might an iodine disorder if...**

- # He/she has a goiter (this is a definite sign of IDD)
- # He/she has problems concentrating or learning.
- # The mother has a goiter.

**Foods with Iodine**

The best way to get iodine is use iodized salt or to eat iodine-rich foods.

These are some foods that have iodine. Circle and write the locally available foods in the blank spaces under each category.

## Foods with Iodine

### Seafood

Shellfish

X oysters

X mussels

X clams

Saltwater fish

Seaweed

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Even if you do eat seafood, regular use of iodized salt is the best way to get iodine.

**What are the brand names of the iodized salt you can buy in your community?**

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