MEASLES & VITAMIN-A
What You Need to Know
What is measles?
Measles is one of the most dangerous childhood diseases as it is easily transmitted from one person to another. The disease causes rash, cough and fever. The rash first appears across the forehead and behind the ears and later covers the face and spreads all over the body.

What causes measles?
Measles is caused by a very small germ called the measles virus. It can be passed on to other children when a child with measles coughs or sneezes. It usually takes 10-18 days for the rash to show after first contact with the measles germs.

As time goes on, the child gets more and more sick the mouth may become sore because of the white spots on the inside wall of the cheeks the child may also have diarrhoea.

After a few days, a rash will appear, first on the forehead and neck and later, on the rest of the face and body.

If the child shows signs of measles, take the child to the nearest health facility for proper treatment.

Signs and symptoms
- High fever
- Cough & runny nose
- Red eyes (conjunctivitis)
- Small white spots form within the mouth and then;
- Rash develops
What can happen to a child who is not treated?
Measles can be accompanied by dangerous complications:
- Ulcers on the eyes which can cause blindness
- Infection of the middle ear (otitis media)
- Severe sores in the mouth which make feeding difficult
- Malnutrition
- Infection of the lungs (pneumonia)
- Infection of the windpipe causing difficulty in breathing (croup)

A child may take many weeks to recover from measles, during this time the child is still in danger from any of the above complications.

Can measles be treated?
Yes, it can be treated if recognized early. The risk of death from measles can be greatly reduced if the disease is recognized early, before complications develop. This is why it is important to take the child to a health facility as soon as measles is suspected.
What should be done if measles is suspected?
The child should be taken to the nearest health facility, so that treatment can be started and complications prevented. The spread of measles to other children in the family/community can also be prevented if recognized early. Children should be observed for any signs and symptoms of measles, and those suspected should be isolated.

How can measles be prevented?
Measles can be prevented through isolation and immunization. Immunization is free in all health facilities. Therefore, all children should be immunized at 9 months, or soon after 9 months.

The role of parents and the community
It is the duty of every parent or caretaker to ensure that all children are immunized against measles from 9 months or as soon after 9 months. If you know of children who are not immunized against measles, encourage their parents or guardians to take them for vaccination.

During the time of the disease and the recovery period the child must be well fed, to prevent malnutrition. The child should also receive vitamin A supplements from the health facility to boost the ability to fight infections and prevent blindness.

Remember:
- Measles can kill children
- Measles can be prevented
- All children must be immunized against measles from 9 months of age, or soon after 9 months.
- In Botswana, immunization services are free for all children.
What is vitamin A?
A nutrient that the body needs in small amounts for healthy growth and development.

How important is vitamin A to the child?
- Vitamin A strengthens the body's resistance to infection and diseases
- Vitamin A contributes to reduction of anemia
- Vitamin A helps to prevent blindness in children.

What causes vitamin A deficiency?
Many factors contribute to Vitamin A deficiency. The most common of these are inadequate breastfeeding, frequent infections especially measles and diarrhea. It is estimated that about 35% of Botswana children under five years have mild to moderate vitamin A deficiency and 3% have serious Vitamin A deficiency.
What are the consequences of vitamin A deficiency?
Vitamin A deficiency reduces the body's ability to fight infections, leading to more severe and prolonged illness and therefore increasing the risk of death. It can cause eye damage, leading to night blindness.

How can you tell when a child needs/requires vitamin A?
One of the first signs of Vitamin A deficiency is loss of appetite. This is soon accompanied by loss of weight and growth failure. Therefore children need to be given Vitamin A to protect them from illnesses. It is a good health practice to take children 6 - 36 months (three years) to the health facility for vitamin A.

Food sources of vitamin A
Vitamin A is found in two forms in the diet:
■ In animal form and plant form.

Examples of foods rich in vitamin A

Milk & milk products:
■ Milk
■ Sour milk
■ Cheese/Cream
■ Yoghurt/butter

Meat
■ Liver e.g. chicken
■ Chicken
■ Beef
■ Egg yolk
■ Fish oil

Yellow & orange fruits & vegetables
■ Carrots
■ Pumpkin
■ Butternut
■ Mango
■ Pawpaw
■ Peaches
■ Moretologa
■ Motsotsojane
■ Moretlwa
Motlopi
Mmopudu

Fortified foods
- Tsabana
- Fortified Maize meal
- Tsabotlhe
- Fortified margarine

Dark green leafy vegetables
- Spinach
- Morogo wa dinawa
- Choumolia
- Thepe
- Rothwe
- Mogabala
- Ledelele

Important: Add cooking oil to help the body use Vitamin A from foods.

Ways of preventing vitamin A deficiency

1. Food based approach
   (a) Breastfeeding
   Adequate breastfeeding supplies the infant with enough Vitamin A for the first 6 months of life and continues to be an important source of Vitamin A for up to 2 years.

   (b) Food Fortification (i.e. the addition of Vitamin A to food commonly eaten by the community).

   (c) Dietary approach
   - Grow/buy fruits and vegetables rich in Vitamin A.
   - Purchase Vitamin A rich foods, such as those listed as Vitamin A rich foods.
   - Preserve Vitamin A in foods by not drying them under direct sunlight.
2. Supplementation
Currently a dose of Vitamin A is given to all children aged 0 - 36 months every 6 months in Health Facilities for the improvement of their Vitamin A status.

Tips on cooking and preservation of Vitamin A rich foods

- Wash vegetables before cutting them.
- Boil water first then add vegetables and cook for a very short time (about 15-20 minutes) to retain all vitamins.
- Store fruits and vegetables away from direct sunlight.
- Do not dry fruits and vegetables under direct sunlight, dry in a shaded area preferably covered with a green black material.

Note: Direct sunlight destroys Vitamin A in fruits and vegetables.

For further information please contact your nearest health facility or call the Expanded Program on Immunization (EPI). Ministry of Health at 3170585 Fax: 3902092.
Produced by
Family Health Division
Ministry of Health
P. O. Box 992
Gaborone,
Botswana
Tel: (267) 3170585
Fax: (267) 3902092