

1. What is measles?

Measles is a highly contagious disease caused by the measles virus. It is a disease that can affect everyone, with the more severe cases being associated with those under 5 and those above 20 years of age.

2. What are the symptoms of measles?

The first symptom of measles is usually a high fever developing 8-12 days after exposure. This is accompanied by the following:

- Cough
- Coryza (head cold with runny nose)
- Conjunctivitis (inflammation of the membrane of the eye, which presents as red and watery eyes)
- Koplik's spots (tiny white spots surrounded by a red ring found inside the mouth)
- Rash that first appears on the face before spreading over the entire body

Complications following infection with measles can include:

- Otitis media (middle ear infection)
- Diarrhoea
- Pneumonia
- Acute encephalitis (inflammation of the brain)
- Sub-acute panencephalitis (a rare degenerative central nervous system disease characterised by behavioural and intellectual deterioration)

3. Why is measles a health problem in South Africa and the world?

Measles remains a public health burden worldwide especially in developing countries where it is estimated that between 30 and 40 million people are affected by measles resulting in 530 000 deaths in 2003. This accounts for approximately 50 – 60% of childhood deaths due to vaccine-preventable diseases, even though a safe and effective vaccine has been available for the past 40 years.

In Africa, measles is the leading cause of vaccine-preventable death, where in 2003 it led to approximately 252 000 deaths or 48% of all measles deaths globally, for the year. The major reason for this burden is not vaccine failure, but failure to vaccinate. The disease thrives in cities - especially in deprived urban areas where overcrowding, poor sanitation, and pockets of low immunisation ensure the continued circulation of measles and other diseases. Meanwhile, population movements to and from urban centres result in the introduction of the disease into nearby villages and towns. This has led to the formation of the Measles Initiative by the American Red Cross together with other partners in 2001, with the aim of reducing measles deaths by 1.2 million in 5 years.

Currently, South Africa, which is in the elimination phase of measles control, is experiencing an outbreak of measles where all of the nine provinces have reported cases. Since the beginning of 2009 to 7 June 2010 there were 16 028 laboratory-confirmed measles cases. Gauteng province accounted for the highest number of cases (31%, 4992/16028), followed by Kwazulu-Natal (24%, 3855/16028) and Mpumalanga (11%, 1790/16028) provinces. For more information on the measles outbreak in South Africa follow the [NICD link](#).

4. How is measles transmitted?

- Airborne droplets from infected persons
- Nose and throat secretions of infected persons

5. Who is at risk?

Babies less than 1 year of age

- Household contacts of persons infected with measles
- Immunocompromised individuals
- Young adults

6. What is the treatment following measles infection?

General nutritional support and the treatment of dehydration with oral rehydration solution are necessary. Children diagnosed with measles should receive two doses of vitamin A supplement given 24 hours apart.

Vitamin A treatment dosage

Age	Immediately on diagnosis	Next day
Less than 6 months	50 000 IU	50 000 IU
6-11 months	100 000 IU	100 000 IU
12 months and over	200 000 IU	200 000 IU

There is no specific therapy, but secondary infections such as pneumonia and otitis media should be treated using antibiotics.

7. How is measles prevented?

Immunisation with a highly efficient and safe measles vaccine is the best way to prevent measles.

8. Who should get the measles vaccine?

- Babies at 9 months and 18 months
- Immunocompromised individuals
- Malnourished individuals

9. How and when is the measles vaccine given?

- Measles vaccine is given by injection to the right thigh in babies less than one year old, and to the right arm for older children and young adults
- Two doses are administered at 9 and 18 months of life for babies. Booster and catch-up doses are available within a couple of months of each other later in life

10. Should HIV positive individuals be vaccinated against measles?

Asymptomatic HIV-infected infants should receive measles vaccine at 6 months of age, followed by an additional dose at 9 months. Adults who are asymptomatic can also be vaccinated. Individuals who have symptomatic HIV infection, but are not severely immunocompromised, can be considered for vaccination.

11. What are the side effects of the measles vaccine?

The measles vaccine is very safe. The most common side-effects are soreness at injection site, fever and rash. Severe reactions to measles vaccine are rare.

Where to find us:

South African Vaccination and Immunisation Centre (SAVIC)
PO Box 173, University of Limpopo – Medunsa Campus
0204, PRETORIA, Gauteng Province, South Africa

Tel: +27 12 521 3077 or 4227; Fax: +27 12 521 5794; Email: info@savic.ac.za ; <http://www.savic.ac.za>